

10 580065

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NEWS	11	FEB 02	Simultaneous left and right truncation (SLART) added for CERAB, COMPUAB, ELCOM, and SOLIDSTATE
NEWS	12	FEB 02	GENBANK enhanced with SET PLURALS and SET SPELLING
NEWS	13	FEB 06	Patent sequence location (PSL) data added to USGENE
NEWS	14	FEB 10	COMPENDEX reloaded and enhanced
NEWS	15	FEB 11	WTEXTILES reloaded and enhanced
NEWS	16	FEB 19	New patent-examiner citations in 300,000 CA/CAPLUS patent records provide insights into related prior art
NEWS	17	FEB 19	Increase the precision of your patent queries -- use terms from the IPC Thesaurus, Version 2009.01
NEWS	18	FEB 23	Several formats for image display and print options discontinued in USPATFULL and USPAT2
NEWS	19	FEB 23	MEDLINE now offers more precise author group fields and 2009 MeSH terms
NEWS	20	FEB 23	TOXCENTER updates mirror those of MEDLINE - more precise author group fields and 2009 MeSH terms
NEWS	21	FEB 23	Three million new patent records blast AEROSPACE into STN patent clusters
NEWS	22	FEB 25	USGENE enhanced with patent family and legal status display data from INPADOCDB
NEWS	23	MAR 06	INPADOCDB and INPAFAMDB enhanced with new display formats

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NEWS 24 MAR 11 EPFULL backfile enhanced with additional full-text applications and grants
NEWS 25 MAR 11 ESBIOBASE reloaded and enhanced
NEWS 26 MAR 20 CAS databases on STN enhanced with new super role for nanomaterial substances
NEWS 27 MAR 23 CA/CAPLUS enhanced with more than 250,000 patent equivalents from China

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 17:20:39 ON 27 MAR 2009

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.22	0.22

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FILE COVERS 1907 - 27 Mar 2009 VOL 150 ISS 14

FILE LAST UPDATED: 26 Mar 2009 (20090326/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> s wo2005052688/pn\
'PN\' IS NOT A VALID FIELD CODE
L1      0 WO2005052688/PN\
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=> s wo2005052688/pn
L2      1 WO2005052688/PN
        (WO2005052688/PN)
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=> d all
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```
L2  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2009 ACS on STN
AN  2005:493774  CAPLUS
DN  143:51855
ED  Entered STN:  10 Jun 2005
TI  Chemically amplified positive photosensitive thermosetting resin
    composition, method of forming cured article and method of producing
    functional device
IN  Takahashi, Toru; Katsumata, Naoya; Maeda, Hiroki
PA  Tokyo Ohka Kogyo Co., Ltd., Japan
SO  PCT Int. Appl., 67 pp.
    CODEN: PIXXD2
DT  Patent
LA  English
IC  ICM G03F007-00
CC  76-3 (Electric Phenomena)
FAN.CNT 1
```

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005052688	A2	20050609	WO 2004-JP17533	20041118
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	WO 2005052688	A3	20050929		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RN: AW, BH, BM, BN, BO, BR, BS, BT, BU, BV, BW, BY, BZ, CA, CH, AZ, BY, BG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	JP 2005181976	A	20050707	JP 2004-260765	20040908
	JP 4131864	B2	20080813		
	EP 1687678	A2	20060809	EP 2004-799821	20041118
	R: DE, IT, NL				
	CN 1875322	A	20061206	CN 2004-80031619	20041118

	KR 2006064007	A	20060612	KR 2006-708026	20060426
	US 20080044764	A1	20080221	US 2007-580065	20070529
PRAI	JP 2003-393812	A	20031125		
	JP 2004-260765	A	20040908		
	WO 2004-JP17533	W	20041118		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2005052688	ICM	G03F0007-00
	IPCI	G03F0007-00 [I,C*]
	IPCR	G03F0007-004 [I,A]; G03F0007-032 [I,C*]; G03F0007-032 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H05K0001-00 [N,C*]; H05K0001-00 [N,A]; H05K0003-28 [N,C*]; H05K0003-28 [N,A]
JP 2005181976	ECLA	G03F0007/004D; G03F0007/039C; G03F0007/039C1S; T05K; T05K
	IPCI	G03F0007-039 [I,A]; G03F0007-004 [I,A]; G03F0007-40 [I,A]
	IPCR	G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-039 [I,A]; G03F0007-039 [I,C*]
	FTERM	2H025/AA14; 2H025/AB16; 2H025/AC04; 2H025/AC08; 2H025/AD03; 2H025/BE00; 2H025/BE10; 2H025/BG00; 2H025/CB16; 2H025/CB17; 2H025/CB41; 2H025/CB45; 2H025/CC17; 2H025/CC20; 2H025/FA17; 2H025/FA29
EP 1687678	IPCI	G03F0007-004 [I,C*]
	ECLA	G03F0007/004D; G03F0007/039C; G03F0007/039C1S; T05K; T05K
CN 1875322	IPCI	G03F0007-004 [I,A]; G03F0007-039 [I,A]
	IPCR	G03F0007-004 [I,C]; G03F0007-004 [I,A]
KR 2006064007	IPCI	G03F0007-004 [I,A]; G03F0007-039 [I,A]
US 20080044764	IPCI	G03F0007-004 [I,A]; G03F0007-00 [I,A]
	NCL	430/280.100; 430/328.000

AB There is provided a photosensitive thermosetting resin composition used for

producing a permanent film, capable of forming a resin layer which is excellent in fluidity upon heat bonding after pattern formation and has excellent adhesion as well as bonding properties and/or sealing properties. This composition contains a reaction product of an alkali soluble resin and a crosslinking polyvinyl ether compound, a compound generating an acid under irradiation, and an epoxy resin.

ST pos photosensitive thermosetting resin compn

IT Light-sensitive materials

(chemical amplified pos. photosensitive thermosetting resin composition and method of forming cured article)

IT Epoxy resins, uses

Resins

RL: DEV (Device component use); USES (Uses)

(chemical amplified pos. photosensitive thermosetting resin composition and method of forming cured article)

IT Plastics, uses

RL: DEV (Device component use); USES (Uses)

(thermosetting; chemical amplified pos. photosensitive thermosetting resin)

10 580065

composition and method of forming cured article)
IT 9003-19-4, Polyvinyl ether
RL: RCT (Reactant); RACT (Reactant or reagent)
(chemical amplified pos. photosensitive thermosetting resin
composition and
method of forming cured article)
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; EP 0544294 A2
(2) Anon; EP 0609684 A1 CAPLUS
(3) Anon; EP 0702271 A1 CAPLUS
(4) Anon; US 20020102501 A1 CAPLUS
(5) Anon; US 5876900 A CAPLUS

=> s jp2001027806/pn
L3 1 JP2001027806/PN

=> d all

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2009 ACS on SIN
AN 2001:67474 CAPLUS
DN 134:139212
ED Entered STN: 30 Jan 2001
TI Chemically amplified resist composition and resist pattern formation
using
same
IN Fujiwara, Tadayuki; Wakisaka, Yukiya
PA Mitsubishi Rayon Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-039
ICS G03F007-032; G03F007-40; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 38

FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 2001027806 A 20010130 JP 1999-199097 19990713
<--

PRAI JP 1999-199097 19990713

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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JP 2001027806	ICM	G03F007-039
	ICS	G03F007-032; G03F007-40; H01L021-027
	IPCI	G03F0007-039 [ICM, 7]; G03F0007-032 [ICS, 7];
G03F0007-40		[ICS, 7]; H01L0021-027 [ICS, 7]
	IPCR	H01L0021-02 [I, C*]; H01L0021-027 [I, A]; G03F0007-032 [I, C*]; G03F0007-032 [I, A]; G03F0007-039 [I, C*]; G03F0007-039 [I, A]; G03F0007-40 [I, C*]; G03F0007-40

[I,A]

AB The title resist composition contains a resin which becomes soluble in aqueous alkali solns., a photoacid generator, and a polyfunctional epoxy compound and/or a polyfunctional vinyl ether compound The resist is irradiated with actinic ray such as UV, deep UV, electron beam, etc. and/or heat-treated using far IR rays or heat source to form resist patterns. The composition useful in deep UV excimer and electron beam lithog. shows improved dry etch resistance.

ST chem amplification resist vinyl ether; epoxy compd chem amplification resist

IT Resists
(chemical amplified resist composition containing epoxy compound and/or vinyl ether compound)

IT 2386-87-0, 3,4-Epoxy cyclohexylmethyl-3,4-epoxycyclohexane carboxylate 130668-21-2, Cyclohexanedimethanol divinyl ether
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(chemical amplified resist composition containing epoxy compound and/or vinyl ether compound)

IT 123589-22-0P, p-tert-Butoxystyrene-p-hydroxystyrene copolymer 195000-69-2P, β -Methacryloyloxy- γ -butyrolactone-2-methacryloyloxy-2-methyladamantane copolymer
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(chemical amplified resist composition containing epoxy compound and/or vinyl ether compound)

IT 66003-78-9, Triphenylsulfonium triflate
RL: TEM (Technical or engineered material use); USES (Uses)
(chemical amplified resist composition containing epoxy compound and/or vinyl ether compound)

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COST IN U.S. DOLLARS

SINCE FILE ENTRY	TOTAL SESSION
12.24	12.46

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE ENTRY	TOTAL SESSION
-1.64	-1.64

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=> s 123589-22-0

REGISTRY INITIATED

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L5 100 L4

=> file reg

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	2.74	16.18
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-1.64

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STRUCTURE FILE UPDATES: 26 MAR 2009 HIGHEST RN 1127762-87-1
DICTIONARY FILE UPDATES: 26 MAR 2009 HIGHEST RN 1127762-87-1

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experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdoc/properties.html>

=> s 123589-22-0

L6 1 123589-22-0
(123589-22-0/RN)

=> d

L6 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2009 ACS on STN

RN 123589-22-0 REGISTRY

ED Entered STN: 03 Nov 1989

CN Phenol, 4-ethenyl-, polymer with 1-(1,1-dimethylethoxy)-4-ethenylbenzene
(CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzene, 1-(1,1-dimethylethoxy)-4-ethenyl-, polymer with 4-ethenylphenol
(9CI)

OTHER NAMES:

CN 4-Hydroxystyrene-4-tert-butoxystyrene copolymer
CN 4-tert-Butoxystyrene-4-hydroxystyrene copolymer
CN 4-tert-Butoxystyrene-p-hydroxystyrene copolymer
CN p-Hydroxystyrene-p-1,1-dimethylethoxystyrene copolymer
CN p-Hydroxystyrene-p-tert-butoxystyrene copolymer
CN p-t-Butoxystyrene-p-hydroxystyrene copolymer
CN p-tert-Butoxystyrene-p-hydroxystyrene copolymer
CN p-tert-Butoxystyrene-p-hydroxystyrene copolymer
CN Poly(p-tert-butoxystyrene-p-hydroxystyrene)

CN VPT 15035

MF (C12 H16 O . C8 H8 O)x

CI PMS

PCT Polystyrene

SR CA

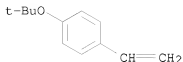
LC STN Files: CA, CAPLUS, CHEMLIST, TOXCENTER, USPAT2, USPATFULL

CM 1

CRN 95418-58-9

CMF C12 H16 O

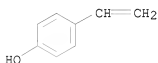
10 580065



CM 2

CRN 2628-17-3

CMF C8 H8 O



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

100 REFERENCES IN FILE CA (1907 TO DATE)

27 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

100 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s 2628-17-3/rn

L7 1 2628-17-3/RN

=> d

L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2009 ACS on STN

RN 2628-17-3 REGISTRY

ED Entered STN: 16 Nov 1984

CN Phenol, 4-ethenyl- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Phenol, p-vinyl- (6CI, 7CI, 8CI)

OTHER NAMES:

CN 4-Ethenylphenol

CN 4-Hydroxystyrene

CN 4-Vinylphenol

CN p-Hydroxystyrene

CN p-Vinylphenol

MF C8 H8 O

CI COM

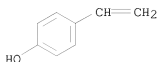
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, BIOTECHNO, CA, CAPLUS,

CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, EMBASE, IFICDB, IFIPAT, IFIUDB, MEDLINE, MSDS-OHS, NAPRALERT, PIRA, PROMT, RTECS*, TOXCENTER, USPAT2, USPATFULL, USPATOLD

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**

(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1061 REFERENCES IN FILE CA (1907 TO DATE)
 115 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 1067 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s 2628-17-3/crn
 L8 2666 2628-17-3/CRN

=> file caplus		
COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	4.58	20.76
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.64

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This file contains CAS Registry Numbers for easy and accurate

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substance identification.

=> s 18 and (polyvinyl ether or polyvinylether or divinylether or divinyl adj ether)

4765 L8
112425 POLYVINYL
555684 ETHER
1065 POLYVINYL ETHER
(POLYVINYL(W)ETHER)
67 POLYVINYLETHER
44 DIVINYLETHER
13029 DIVINYL
310 ADJ
555684 ETHER
0 DIVINYL ADJ ETHER
(DIVINYL(W)ADJ(W)ETHER)
L9 8 L8 AND (POLYVINYL ETHER OR POLYVINYLETHER OR DIVINYLETHER OR
DIVINYL ADJ ETHER)

=> d all 1-8

L9 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2009:86337 CAPLUS
DN 150:145061
ED Entered STN: 23 Jan 2009
TI Manufacture of hydroxystyrene-based ABA triblock copolymers
IN Aoki, Hijiri; Mita, Takahito; Yoshida, Norihiro; Sawada, Goro; Haba,
Kazuhiko; Kamada, Ami
PA Maruzen Petrochemical Co., Ltd., Japan
SO PCT Int. Appl., 30pp.
CODEN: PIXXD2
DT Patent
LA Japanese
CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 200901186	A1	20090122	WO 2008-JP60549	20080609
	W:	AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
	RN:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	JP 2009019158	A	20090129	JP 2007-184280	20070713
PRAI	JP 2007-184280	A	20070713		
CLASS	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES		

WO 2009011186	IPCI	C08F0293-00 [I,A]; C08G0081-02 [I,A]; C08G0081-00 [I,C*]
JP 2009019158	IPCI	C08F0293-00 [I,A]; C08G0081-02 [I,A]; C08G0081-00 [I,C*]
	FTERM	4J026/HA05; 4J026/HA10; 4J026/HA48; 4J026/HB06; 4J026/HB22; 4J026/HB32; 4J026/HB38; 4J026/HB43; 4J026/HB45; 4J026/HB47; 4J026/HE02; 4J031/AA13; 4J031/AA16; 4J031/AB02; 4J031/AC11; 4J031/AE02; 4J031/AE12; 4J031/AF22; 4J031/BA28; 4J031/BB01; 4J031/BD22; 4J031/CA06; 4J031/CA12; 4J031/CA24; 4J031/CA37; 4J031/CA69; 4J031/CB01; 4J031/CC08; 4J031/CD25

AB Disclosed is a novel hydroxystyrene-based ABA triblock copolymer which is excellent in resolution, elec. insulation, thermal shock resistance, adhesion and the like. This hydroxystyrene-based ABA triblock copolymer is useful as a raw material for a photosensitive resin component that is suitable for interlayer insulating films or surface protective films for semiconductor devices. Also disclosed is a simple method for producing such a hydroxystyrene-based ABA triblock copolymer. Specifically disclosed is a novel hydroxystyrene-based ABA triblock copolymer which is composed of a segment A containing a hydroxystyrene repeating unit (a1) and a segment B containing a vinyl ether repeating unit (b). The linking portion between the segment A and the segment B has a specific structure. Also specifically disclosed is a method for producing such a hydroxystyrene-based ABA triblock copolymer. This copolymer can be produced by radically polymerizing a hydroxystyrene monomer, while using a polyvinyl ether having thiol groups at both ends as a chain-transfer agent.

ST hydroxystyrene triblock copolymer insulating protective film semiconductor; resins elec insulation thermal shock resistant adhesion photosensitive

IT Chain transfer agents
Esterification
Esterification catalysts
(manufacture of hydroxystyrene-based ABA triblock copolymers)

IT Polymerization
Polymerization catalysts
(radical; manufacture of hydroxystyrene-based ABA triblock copolymers)

IT 107-96-0, Mercaptopropionic acid 110-15-6, Succinic acid, uses
RL: MOA (Modifier or additive use); USES (Uses)
(chain transfer agent; manufacture of hydroxystyrene-based ABA triblock copolymers)

IT 2589-57-3, Dimethyl azobis(isobutyrate) 6192-52-5, p-Toluenesulfonic acid monohydrate
RL: CAT (Catalyst use); USES (Uses)
(manufacture of hydroxystyrene-based ABA triblock copolymers)

IT 1095215-05-6P 1104037-91-3P
RL: INF (Industrial manufacture); PREP (Preparation)
(manufacture of hydroxystyrene-based ABA triblock copolymers)

10 580065

IT 688810-63-1, TOE 2000H
RL: RCT (Reactant); RACT (Reactant or reagent)
(manufacture of hydroxystyrene-based ABA triblock copolymers)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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- (2) Kuraray Co Ltd; EP 000124782 A2 1984 CAPLUS
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- (6) Tosoh Corp; JP 2003342327 A 2003 CAPLUS

L9 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2009:55859 CAPLUS

DN 150:98826

ED Entered STN: 15 Jan 2009

TI Manufacture of vinyl-ether-based ABA triblock copolymer

IN Yoshida, Norihiro; Aoki, Hijiri; Mita, Takahito; Kamada, Ami; Haba, Kazuhiko; Sawada, Goro

PA Maruzen Petrochemical Co., Ltd., Japan

SO PCT Int. Appl., 28pp.

CODEN: PIXXD2

DT Patent

LA Japanese

CC 35-4 (Chemistry of Synthetic High Polymers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2009008252	A1	20090115	WO 2008-JP61198	20080619
	W:	AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GE, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
	RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRAI JP 2007-178151

A

20070706

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

WO 2009008252 IPCI C08F0297-00 [I,A]; C08F0016-14 [I,A]; C08F0016-00 [I,C*]

AB Disclosed is a novel vinyl-ether-based ABA triblock copolymer comprising
a

polyvinyl ether and hydroxystyrene units; and a process
by which the ABA type copolymer can be easily produced via a series of
steps. The novel ABA triblock copolymer is made up of segments (A)
comprising hydroxystyrene repeating units (a) and a segment (B)
comprising
vinyl ether repeating units (b), each segment (A) being bonded to the

segment (B) through a single bond. This triblock copolymer can be produced via a series of simple steps, i.e., by polymerizing a vinyl ether monomer such as Et vinyl ether by living cationic polymerization in the presence of a bifunctional initiator and a Lewis acid, subsequently adding a hydroxystyrene monomer such as p-hydroxystyrene, and polymerizing the hydroxystyrene monomer by living cationic polymerization

ST hydroxystyrene polyvinyl ether ABA triblock
bifunctional initiator living cationic

IT Catalysts
(bifunctional; manufacture of vinyl-ether-based ABA triblock copolymer)

IT Polymerization
Polymerization catalysts
(cationic, living; manufacture of vinyl-ether-based ABA triblock copolymer)

IT Lewis acids
RL: CAT (Catalyst use); USES (Uses)
(manufacture of vinyl-ether-based ABA triblock copolymer)

IT 6192-52-5, 4-Toluenesulfonic acid monohydrate 12075-68-2,
Trichlorotriethylaluminum 746621-78-3,
1,4-Bis(1-acetoxyethoxy)butane
RL: CAT (Catalyst use); USES (Uses)
(manufacture of vinyl-ether-based ABA triblock copolymer)

IT 1095215-05-6P, Ethyl vinyl ether-p-hydroxystyrene triblock
copolymer 1095215-07-8P, n-Butyl vinyl ether-p-tert-butoxystyrene
triblock copolymer 1095215-09-0P, n-Butyl vinyl
ether-p-hydroxystyrene triblock copolymer 1095215-10-3P,
p-Acetoxy-styrene-ethyl vinyl ether triblock copolymer 1095215-11-4P,
Ethyl vinyl ether-p-isopropenylphenol triblock copolymer 1095282-15-7P,
Ethyl vinyl ether-p-tert-butoxystyrene triblock copolymer
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of vinyl-ether-based ABA triblock copolymer)

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

(1) Canon Inc; WO 2004063240 A1 2004 CAPLUS
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(3) Canon Inc; US 20060046515 A1 2004 CAPLUS
(4) Kaneka Corp; WO 1999055751 A1 2000
(5) Kaneka Corp; JP 2000198825 A 2000 CAPLUS
(6) Kaneka Corp; US 20030166786 A1 2000 CAPLUS
(7) Kaneka Corp; EP 992519 A1 2000 CAPLUS
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(11) Kyowa Yuka Co Ltd; JP 2004244535 A 2004 CAPLUS
(12) Tosoh Corp; JP 2003342327 A 2003 CAPLUS

L9 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2003:520162 CAPLUS
DN 139:215014
ED Entered STN: 09 Jul 2003
IT Dynamical heterogeneity in the thermodynamically miscible polymer blend
of

poly(vinyl ethyl ether) and styrene-co-p-hydroxystyrene copolymer
 AU Zhang, S. H.; Jin, X.; Painter, P. C.; Runt, J.
 CS Department of Materials Science and Engineering and Materials Research
 Institute, The Pennsylvania State University, University Park, PA, 16802,
 USA
 SO Macromolecules (2003), 36(15), 5710-5718
 CODEN: MAMOBX; ISSN: 0024-9297
 PB American Chemical Society
 DT Journal
 LA English
 CC 36-6 (Physical Properties of Synthetic High Polymers)
 Section cross-reference(s): 37
 AB The dynamic heterogeneity of the thermodynamically miscible blend of
 poly(vinyl Et ether) and styrene-co-p-hydroxystyrene (PVEE/SHS) has been
 investigated using broadband dielec. spectroscopy (DRS) and other exptl.
 probes. In our previous study of PVEE/poly(p-hydroxystyrene) (PVPh)
 blends, we found that the segmental relaxations of the component polymers
 can be coupled if there is sufficient intermol. hydrogen bonding. For
 SHS/PVEE blends, however, two segmental relaxations are observed in the
 DRS
 spectra, even for blends with a fraction of intermol. hydrogen bonds as
 large as that in the PVPh/PVEE blend, in which a single segmental
 relaxation was found as a result of the coupling effect from the hydrogen
 bonds. This behavior is explained by the existence of unfavorable
 interactions between PVEE and the styrene units in SHS, which is
 supported
 by the immiscibility between PS and PVEE. The repulsive force endows the
 non-hydrogen-bonded PVEE segments with more freedom to relax, so that
 they
 can be distinguished from the relaxation of intermolecularly
 hydrogen-bonded PVEE-SHS segments. This indicates more significant
 dynamic heterogeneity in SHS/PVEE than in PVEE/PVPh blends.
 ST polyvinyl ether blend hydroxystyrene polymer dielec
 relaxation
 IT Dielectric loss
 Dielectric relaxation
 Hydrogen bond
 Polymer interaction parameter
 (in poly(Et vinyl ether)/hydroxystyrene-styrene copolymer blends)
 IT Polymer blends
 RL: PRP (Properties)
 (poly(Et vinyl ether)/hydroxystyrene-styrene copolymer; dynamical
 heterogeneity in)
 IT Polymer chains
 (relaxation; in poly(Et vinyl ether)/hydroxystyrene-styrene copolymer
 blends)
 IT 25104-37-4, Poly(ethyl vinyl ether)
 RL: PRP (Properties)
 (blends with hydroxystyrene-styrene copolymer; dynamical heterogeneity
 in)
 IT 24979-74-6, p-Hydroxystyrene-styrene copolymer
 RL: PRP (Properties)
 (blends with poly(Et vinyl ether); dynamical heterogeneity in)
 RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD
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L9 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2000:335452 CAPLUS

DN 132:322306

ED Entered STN: 19 May 2000

TI Preparation of partially crosslinked polymers and their use in pattern formation

IN Bantu, Nageshwer Rao; Perry, Donald Frank; Marshall, Jacqueline Marie;

10 580065

Holt, Timothy Michael
PA Arch Specialty Chemicals, Inc., USA
SO PCT Int. Appl., 35 pp.
CODEN: PIXXD2

DT Patent

LA English

IC ICM C08F004-00

ICS C08F261-00; C08F261-02; G03C001-72; G03C005-00; G03C005-56

CC 35-8 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 74

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000027891	A1	20000518	WO 1999-US21987	19990922
W: JP, KR				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6072006	A	20000606	US 1998-186916	19981106
EP 1137675	A1	20011004	EP 1999-971820	19990922
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002529552	T	20020910	JP 2000-581068	19990922
US 6262181	B1	20010717	US 1999-469379	19991222
PRAI US 1998-186916	A	19981106		
WO 1999-US21987	W	19990922		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2000027891	ICM	C08F004-00
	ICS	C08F261-00; C08F261-02; G03C001-72; G03C005-00; G03C005-56
	IPCI	C08F0004-00 [ICM,7]; C08F0261-00 [ICS,7]; C08F0261-02 [ICS,7]; G03C0001-72 [ICS,7]; G03C0005-00 [ICS,7]; G03C0005-56 [ICS,7]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; C08F0004-00 [I,C*]; C08F0004-00 [I,A]; C08F0008-00 [I,C*]; C08F0008-00 [I,A]; C08F0008-14 [I,A]; C08F0261-00 [I,C*]; C08F0261-00 [I,A]; C08F0261-06 [I,A]; C08J0003-24 [I,C*]; C08J0003-24 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
US 6072006	ECLA	C08F261/00; C08F261/06; G03F007/039; S03F
	IPCI	C08F0261-02 [ICM,7]; C08F0261-00 [ICM,7,C*]
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; C08F0004-00 [I,C*]; C08F0004-00 [I,A]; C08F0008-00 [I,C*]; C08F0008-00 [I,A]; C08F0008-14 [I,A]; C08F0261-00 [I,C*]; C08F0261-00 [I,A]; C08F0261-06 [I,A]; C08J0003-24 [I,C*]; C08J0003-24 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
	NCL	525/262.000; 525/312.000; 525/313.000
	ECLA	C08F261/00; C08F261/06; G03F007/039; S03F
EP 1137675	IPCI	C08F0004-00 [ICM,6]; C08F0261-00 [ICS,6]; C08F0261-02 [ICS,6]; G03C0001-72 [ICS,6]; G03C0005-00 [ICS,6]; G03C0005-56 [ICS,6]

IPCR G03F0007-004 [I,C*]; G03F0007-004 [I,A]; C08F0004-00 [I,C*]; C08F0004-00 [I,A]; C08F0008-00 [I,C*]; C08F0008-00 [I,A]; C08F0008-14 [I,A]; C08F0261-00 [I,C*]; C08F0261-00 [I,A]; C08F0261-06 [I,A]; C08J0003-24 [I,C*]; C08J0003-24 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]

JP 2002529552 ECLA C08F261/00; C08F261/06; G03F007/039; S03F
 IPCI C08F0008-00 [ICM,7]; C08F0008-14 [ICS,7]; G03F0007-004 [ICS,7]; G03F0007-039 [ICS,7]; H01L0021-027 [ICS,7]; H01L0021-02 [ICS,7,C*]; C08J0003-24 [ICS,7]

IPCR G03F0007-004 [I,C*]; G03F0007-004 [I,A]; C08F0004-00 [I,C*]; C08F0004-00 [I,A]; C08F0008-00 [I,C*]; C08F0008-00 [I,A]; C08F0008-14 [I,A]; C08F0261-00 [I,C*]; C08F0261-00 [I,A]; C08F0261-06 [I,A]; C08J0003-24 [I,C*]; C08J0003-24 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]

US 6262181 IPCI C08F0261-02 [ICM,7]; C08F0261-00 [ICM,7,C*]
 IPCR G03F0007-004 [I,C*]; G03F0007-004 [I,A]; C08F0004-00 [I,C*]; C08F0004-00 [I,A]; C08F0008-00 [I,C*]; C08F0008-00 [I,A]; C08F0008-14 [I,A]; C08F0261-00 [I,C*]; C08F0261-00 [I,A]; C08F0261-06 [I,A]; C08J0003-24 [I,C*]; C08J0003-24 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]

NCL 525/262.000; 430/270.100; 430/322.000; 430/340.000; 525/312.000; 525/313.000

ECLA C08F261/00; C08F261/06; G03F007/039; S03F

AB This invention relates to a process for generating an organically soluble partially cross-linked acid labile polymer according to the present invention, and comprises the steps of providing a polymer with one or more monomer units, wherein at least one of the monomer units contain one or more pendent COOH or hydroxyl groups; and reacting the polymer with a polyvinyl ether in the presence of an acid catalyst to form links between at least two polymer chains. The resulting polymer can be used as a component in a photoresist formulation. A polymer was prepared by reaction of poly (p-hydroxystyrene) with cyclohexanedimethanol divinyl ether and 2-ethylhexyl vinyl ether.

ST vinyl ether crosslinked polymer photoresist

IT Photoresists
 (preparation of partially crosslinked polymers and their use in pattern formation)

IT 103-44-6P, 2-Ethyl hexyl vinyl ether 2182-55-0P, Cyclohexyl vinyl ether 24979-70-2P, Poly (p-hydroxystyrene) 130668-21-2P, Cyclohexanedimethanol divinyl ether
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of partially crosslinked polymers and their use in pattern formation)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Schacht; US 5849808 A 1998 CAPLUS

L9 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1998:45699 CAPLUS

DN 128:102709

OREF 128:20131a,20134a

ED Entered STN: 28 Jan 1998

TI Miscibility and interactions in poly(vinyl methyl ether)/poly(4-hydroxystyrene) blends

AU Lezcano, E. G.; de Arellano, D. Ramirez; Prolongo, M. G.; Coll, C. Salom

CS Departamento de Ingenieria Quimica, Facultad de Quimica, Universidad de Murcia, Murcia, 30071, Spain

SO Polymer (1998), 39(8-9), 1583-1589

CODEN: POLMAG; ISSN: 0032-3861

PB Elsevier Science Ltd.

DT Journal

LA English

CC 36-6 (Physical Properties of Synthetic High Polymers)

AB Differential scanning calorimetry (DSC) and inverse gas chromatog. (IGC) were used to analyze the miscibility and interactions in the poly(4-hydroxystyrene)/poly(vinyl Me ether) (P4HS/PVME) system. The miscibility was assessed by the measurement of a single glass transition temperature, Tg, for each blend composition The Tg-composition curve

was analyzed in

terms of several theories. The influence of mol. weight of P4HS in the presence of a cusp in the Tg-composition curve was discussed by comparison with

previous Tg data. The IGC retention behavior of the homopolymers and 3 blends (0.25, 0.5 and 0.75 P4HS volume fractions) was realized at 190°C using selected probes. The polymer-polymer interaction parameters χ_{23} calculated from the Scott-Flory-Huggins formalism showed

an

apparent dependence on the probes. This dependence was analyzed using Horta's method based on the equation-of-state theory and a more simplified

method proposed by Desphande. Neg. values of χ_{23} confirmed the miscibility of the system. A blend composition dependence of χ_{23} was found, mainly determined by differences in the mol. surface-to-volume ratio of

the polymers.
ST miscibility interaction polyvinyl ether
polyhydroxystyrene blend

IT Differential scanning calorimetry

Glass transition temperature

Inverse gas chromatography

Miscibility

Polymer interaction parameter

Solvent effect

(miscibility and interactions in poly(vinyl Me ether)/poly(hydroxystyrene) blends)

IT Polymer blends

RL: PEP (Physical, engineering or chemical process); PRP (Properties);

PROC (Process)

- (miscibility and interactions in poly(vinyl Me ether)/poly(hydroxystyrene) blends)
- IT 9003-09-2, Poly(vinyl methyl ether) 24979-70-2, Poly(4-hydroxystyrene)
- RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PROC (Process); USES (Uses)
- (miscibility and interactions in poly(vinyl Me ether)/poly(hydroxystyrene) blends)
- RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD
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 - (2) Al-Saigh, Z; Macromolecules 1984, V17, P803 CAPLUS
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L9 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1998:39353 CAPLUS

DN 128:76034

OREF 128:14877a,14880a

ED Entered STN: 24 Jan 1998

TI Viscoelastic properties of miscible mixtures of poly(vinyl methyl ether) with polystyrene and poly(4-vinylphenol) in terminal region

AU Akiba, Isamu; Akiyama, Saburo

CS Department of Chemical Science and Technology, Tokyo University of Agriculture and Technology, Tokyo, 184, Japan

SO Polymer Networks & Blends (1997), 7(4), 147-152

CODEN: PNBLES; ISSN: 1181-9510

PB ChemTec Publishing

DT Journal

LA English

CC 37-5 (Plastics Manufacture and Processing)

AB Viscoelastic properties of miscible poly(vinyl Me ether) (PVME)/polystyrene (PS) and PVME/poly(4-vinylphenol) (PVPh) mixts. in the terminal region were measured by using parallel-plate rheometry. It was found that frequency-temperature superposition was applicable over the entire temperature range for the blends in overall blend composition

Temperature dependence of the frequency shift factor for each blend was expressed by a WLF type equation, $\log a_T = -9.07(T-T_0)/(152 + T-T_0)$. The zero-shear viscosity behavior was discussed as a function of volume fraction of PVME. Under iso-free volume conditions, composition dependence and magnitude of η_0 in the

entanglement region for PVME/PS blends were almost same as those for PVME/PVPh blends ($\eta_0 \propto \phi_{\text{PVPh}}^{1.5}$) in spite of the differences in chemical structure between PS and PVPh. It was concluded that

dissimilar polymers in miscible polymer mixts. relaxed independently in the terminal region in no relation to difference of chemical structure or specific interactions under iso-free volume conditions.

ST Viscoelasticity polyvinyl ether blend; polystyrene blend viscoelasticity; polyvinylphenol blend viscoelasticity

IT Viscoelasticity (of miscible polymer mixts.)

IT Polymer blends RL: PRP (Properties) (poly(Me vinyl ether) with polystyrene or poly(vinylphenol); viscoelastic properties of miscible mixts.)

IT 9003-53-6, Polystyrene 24979-70-2, Poly(4-vinylphenol)

RL: PRP (Properties) (blends with poly(Me vinyl ether); viscoelastic properties of miscible mixts.)

IT 9003-09-2, Poly(vinyl methyl ether)

RL: PRP (Properties) (blends with polystyrene or poly(vinylphenol); viscoelastic properties of miscible mixts.)

RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

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L9 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1996:409582 CAPLUS

DN 125:60009

OREF 125:11543a,11546a

ED Entered STN: 13 Jul 1996

TI Multifunctional vinyl ether compounds

IN Hozumi, Shigeo; Nakagawa, Hiroya

PA Sumitomo Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F012-14

ICS C08F012-34; C08F016-32

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 38

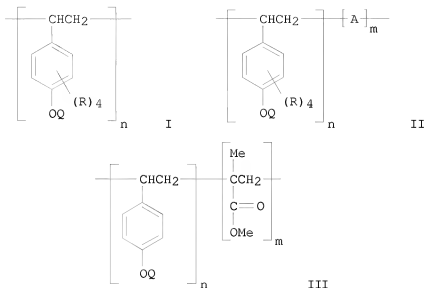
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08081521	A	19960326	JP 1994-220017	19940914
PRAI	JP 1994-220017		19940914		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 08081521	ICM	C08F012-14
	ICS	C08F012-34; C08F016-32
	IPCI	C08F0012-14 [ICM,6]; C08F0012-34 [ICS,6]; C08F0016-32 [ICS,6]
	IPCR	C08F0012-14 [I,A]; C08F0012-00 [I,C*]; C08F0012-00 [I,A]; C08F0012-34 [I,A]; C08F0016-00 [I,C*]; C08F0016-32 [I,A]

GI



AB The compds. have I [Q = H, CH₂CH(OH)CH₂OCH:CH₂; R = H, C_≤10 (cyclo)alkyl, C_≤15 aryl, halogen; H/CH₂CH(OH)CH₂OCH:CH₂ = 0/100-90/10; n = 1-50], II (A = unit derived from unsatd. compound for chain polymerization; m, n ≥ 1; m + n = 2-50), or III and are used for photosensitive resins. Thus, Maruka Lyncur M, 4-methylimidazole, and glycidylvinyl ether were reacted to obtain a vinyl ether compound useful for a photosensitive compound

ST polyvinyl ether photosensitive resin

IT Light-sensitive materials
(multifunctional polyvinyl ether compds. for photosensitive resins)

IT Polyethers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(multifunctional polyvinyl ether compds. for photosensitive resins)

IT 3678-15-7D, Glycidylvinyl ether, reaction products with multifunctional phenols 24979-70-2D, Maruka Lyncur M, reaction product with glycidylvinyl ether 24979-71-3D, Maruka Lyncur CMM, reaction product with glycidylvinyl ether 24979-74-6D, Maruka Lyncur CST 50, reaction product with glycidylvinyl ether
RL: TEM (Technical or engineered material use); USES (Uses)
(multifunctional polyvinyl ether compds. for photosensitive resins)

L9 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1990:553499 CAPLUS
DN 113:153499
OREF 113:26105a,26108a
ED Entered STN: 27 Oct 1990

TI Free volume in hydrogen bonding polymer blends
 AU Graf, J. F.; Painter, P. C.; Coleman, M. M.
 CS Dep. Mater. Sci. Eng., Pennsylvania State Univ., University Park, PA,
 16802, USA
 SO Polymer Preprints (American Chemical Society, Division of Polymer
 Chemistry) (1990), 31(1), 537-8
 CODEN: ACPPAY; ISSN: 0032-3934
 DT Journal
 LA English
 CC 36-6 (Physical Properties of Synthetic High Polymers)
 AB The effect of equation of state (free volume) terms on a model for
 prediction of phase behavior of hydrogen bonding blends of
 poly(4-vinylphenol) (I) with poly(Bu acrylate) (II), poly(Bu
 methacrylate)
 (III), or poly(vinyl Bu ether) (IV) was studied. The predicted upper
 critical solution temperature for I-II blends was not modified by
 inclusion of the
 equation of state term; likewise I-III blends were not significantly
 changed after accounting for equation of state terms. Free volume
 effects
 were greatest in the I-IV blends, where a change in the breadth of the
 unstable region was noted, but changes in the actual location and height
 of the lower critical solution temperature were minor.
 ST crit soln temp polymer blend; equation state polymer blend model;
 hydrogen
 bonding polymer blend phase; polyvinylphenol blend model equation state;
 polybutyl methacrylate blend model phase; polyvinyl
 ether blend model phase; acrylic polymer blend hydrogen bonding
 IT Hydrogen bond
 (in polymer blends, equation of state effects on predictions of phase
 behavior in relation to)
 IT Equation of state
 (model prediction of phase behavior of hydrogen-bonding polymer blends
 in relation to)
 IT Critical solution temperature
 (lower, of hydrogen bonding polymer blends, model predictions of,
 equation of state effects on)
 IT 24979-70-2, Poly(4-vinylphenol)
 RL: PRP (Properties)
 (blends with hydrogen-bonding polymers, phase behavior of, model
 predictions of, equation of state effects on)
 IT 1333-74-0
 RL: PRP (Properties)
 (hydrogen bond, in polymer blends, equation of state effects on
 predictions of phase behavior in relation to)
 IT 9003-49-0, Poly(butyl acrylate) 9003-63-8, Poly(butyl methacrylate)
 25232-87-5, Poly(vinyl butyl ether)
 RL: PRP (Properties)
 (poly(vinylphenol) blends, phase behavior of, model predictions of,
 equation of state effects on)

=> s 18 and (polyvinyl ether or polyvinylether or divinylether or divinyl adj
 ether) and (epoxy or diepoxy or polyepoxy or diglycidyl or polyglycidyl)
) IS NOT A RECOGNIZED COMMAND

10 580065

The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s l8 and (polyvinyl ether or polyvinylether or divinylether or divinyl adj
ether) and (epoxy or diepoxy? or polyepoxy? or diglycidyl? or polyglycidyl?)

```
      4765 L8
      112425 POLYVINYL
      555684 ETHER
      1065 POLYVINYL ETHER
            (POLYVINYL(W)ETHER)
      67 POLYVINYLETHER
      44 DIVINYLETHER
      13029 DIVINYL
      310 ADJ
      555684 ETHER
      0 DIVINYL ADJ ETHER
            (DIVINYL(W)ADJ(W)ETHER)
      264763 EPOXY
      3381 DIEPOXY?
      1354 POLYEPOXY?
      20469 DIGLYCIDYL?
      2637 POLYGLYCIDYL?
L10      0 L8 AND (POLYVINYL ETHER OR POLYVINYLETHER OR DIVINYLETHER OR
            DIVINYL ADJ ETHER) AND (EPOXY OR DIEPOXY? OR POLYEPOXY? OR
DIGL      YCIDYL? OR POLYGLYCIDYL?)
```

=> s l8 and (epoxy or diepoxy? or polyepoxy? or diglycidyl? or
polyglycidyl?)

```
      4765 L8
      264763 EPOXY
      3381 DIEPOXY?
      1354 POLYEPOXY?
      20469 DIGLYCIDYL?
      2637 POLYGLYCIDYL?
L11      575 L8 AND (EPOXY OR DIEPOXY? OR POLYEPOXY? OR DIGLYCIDYL? OR
POLY      GLYCIDYL?)
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=> s l11 and positiv?

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      137809 POSITIV?
L12      15 L11 AND POSITIV?
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=> d all 1-15

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L12 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2009:266981 CAPLUS
DN 150:294666
ED Entered STN: 06 Mar 2009
TI Positive-working photosensitive insulating resin composition,
its cured material, and printed circuit board
IN Sasaki, Hirofumi; Goto, Hirofumi
PA JSR Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 25pp.
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CODEN: JKXXAF
 DT Patent
 LA Japanese
 CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38, 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2009047761	A	20090305	JP 2007-211461	20070814
PRAI	JP 2007-211461		20070814		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2009047761	IPCI	G03F0007-023 [I,A]; G03F0007-004 [I,A]; G03F0007-033 [I,A]; G03F0007-038 [I,A]; G03F0007-085 [I,A]; G03F0007-075 [I,A]; H01L0021-027 [I,A]; H01L0021-02 [I,C*]; C08G0059-62 [I,A]; C08G0059-00 [I,C*]
	FTERM	2H025/AA02; 2H025/AA10; 2H025/AA14; 2H025/AA20; 2H025/AB15; 2H025/AB16; 2H025/AB17; 2H025/AC01; 2H025/AD03; 2H025/BE01; 2H025/CB08; 2H025/CB11; 2H025/CB14; 2H025/CB16; 2H025/CB17; 2H025/CB29; 2H025/CB54; 2H025/CC06; 2H025/CC17; 2H025/CC20; 2H025/FA17; 2H025/FA29; 4J036/AA01; 4J036/AD08; 4J036/AF06; 4J036/AJ08; 4J036/DB06; 4J036/DD01; 4J036/FA13; 4J036/FB05; 4J036/FB07; 4J036/FB09; 4J036/HA02; 4J036/JA09

AB The composition contains (A) alkaline-soluble resin with phenolic OH group, (B) phenolic low mol. weight compound, (C) quinonediazide compound, (D) epoxy resin with softening temperature 50-80° and epoxy equivalent 211-285 g/equivalent, (E) crosslinked polymer particle, and (F) adhesive aid.

The cured composition and printed circuit board with the cured composition are claimed. The composition shows high resolution, elec. insulating property, heat-shock resistance, and adhesivity.

ST pos photosensitive resin elec insulator phenolic resin

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)
 (novolak; pos.-working photosensitive insulating resin composition containing phenolic resin for insulating film)

IT Dielectric films

Photoimaging materials

(pos.-working photosensitive insulating resin composition containing phenolic resin for insulating film)

IT Aminoplasts

Epoxy resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)
 (pos.-working photosensitive insulating resin composition containing phenolic resin for insulating film)

10 580065

IT Printed circuit boards
(pos.-working photosensitive insulating resin composition containing phenolic resin for insulating film of printed circuit board)

IT 2530-83-8, A 187 26115-70-8
RL: TEM (Technical or engineered material use); USES (Uses)
(adhesive aid; pos.-working photosensitive insulating resin composition containing phenolic resin for insulating film)

IT 425377-30-6, 1,3-Butadiene-divinylbenzene-hydroxybutyl methacrylate-methacrylic acid copolymer 793678-46-3, Butadiene-divinylbenzene-hydroxybutyl methacrylate-methacrylic acid-styrene copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(crosslinked polymer particle; pos.-working photosensitive insulating resin composition containing phenolic resin for insulating film)

IT 9003-08-1, MW 30M
RL: TEM (Technical or engineered material use); USES (Uses)
(crosslinking agent; pos.-working photosensitive insulating resin composition containing phenolic resin for insulating film)

IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(novolak; pos.-working photosensitive insulating resin composition containing phenolic resin for insulating film)

IT 24979-74-6, p-Hydroxystyrene-styrene copolymer 59269-51-1, Poly(hydroxystyrene) 110726-28-8 137902-98-8 143178-45-4 225111-62-6, XD 1000 225919-17-5, NC 3000P 926924-87-0, 2-Hydroxybutyl acrylate-p-hydroxystyrene-styrene copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(pos.-working photosensitive insulating resin composition containing phenolic resin for insulating film)

L12 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2008:380453 CAPLUS
DN 148:415650
ED Entered STN: 28 Mar 2008
TI Resist composition capable of prevention of the formation of abnormal resist pattern shapes for efficient, high-precision formation of fine, high-resolution resist patterns in manufacturing semiconductor device
IN Kon, Junichi
PA Fujitsu Limited, Japan
SO U.S. Pat. Appl. Publ., 47pp.
CODEN: USXXCO
DT Patent
LA English
INCL 438689000; 430270100; 257-E21.483
CC 76-3 (Electric Phenomena)
Section cross-reference(s): 48, 74
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI US 20080076252	A1	20080327	US 2007-859930	20070924
JP 2008083196	A	20080410	JP 2006-260836	20060926

PRAI JP 2006-260836

A

20060926

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 20080076252	INCL	438689000; 430270100; 257-E21.483
	IPCI	H01L0021-461 [I,A]; H01L0021-02 [I,C*]; G03C0001-00 [I,A]
	NCL	438/689.000; 257/E21.483; 257/E21.688; 257/E27.081; 430/270.100
JP 2008083196	IPCI	G03F0007-004 [I,A]; G03F0007-039 [I,A]; H01L0021-027 [I,A]; H01L0021-02 [I,C*]
	IPCR	G03F0007-004 [I,C]; G03F0007-004 [I,A]; G03F0007-039 [I,C]; G03F0007-039 [I,A]; H01L0021-02 [I,C]; H01L0021-027 [I,A]
	FTERM	2H025/AA03; 2H025/AB14; 2H025/AB16; 2H025/AB17; 2H025/AC05; 2H025/AC06; 2H025/AC07; 2H025/AD03; 2H025/BE07; 2H025/BF02; 2H025/BF15; 2H025/BG00; 2H025/CC20; 2H025/FA17; 2H025/FA41
AB		To provide a resist composition capable of prevention of the formation of abnormal resist pattern shapes for efficient, high-precision formation of fine, high-resolution resist patterns, a resist pattern forming process capable of efficient, high-precision formation of finer, high-resolution resist patterns by using the resist composition, and a method for manufacturing a semiconductor device. The resist composition of the present invention includes a base resin, a photoacid generator, a 1st additive, and a 2nd additive, wherein the pKa of the 2nd additive is higher than the pKa of the 1st additive, and at a resist formation temperature, the vapor pressure of the 2nd additive is lower than the vapor pressure of the 1st additive.
ST		resist compn prevention abnormal shape efficient resolu manuf semiconductor
IT		Nonvolatile memory devices (EPROM (erasable programmable read-only); photoresist composition capable of prevention of formation of abnormal photoresist pattern shapes for efficient, high-precision formation of fine, high-resolution photoresist patterns in manufacturing semiconductor device)
IT		Nonvolatile memory devices (flash; photoresist composition capable of prevention of formation of abnormal photoresist pattern shapes for efficient, high-precision formation of fine, high-resolution photoresist patterns in manufacturing semiconductor device)
IT		Electron beams (irradiation; photoresist composition capable of prevention of formation of abnormal photoresist pattern shapes for efficient, high-precision formation of fine, high-resolution photoresist patterns in manufacturing semiconductor device)
IT		Phenolic resins, processes RL: PEP (Physical, engineering or chemical process); TEM (Technical or

engineered material use); PROC (Process); USES (Uses)
 (novolak, photoresist; photoresist composition capable of prevention
 of formation of abnormal photoresist pattern shapes for efficient,
 high-precision formation of fine, high-resolution photoresist
 patterns in manufacturing semiconductor device)
 IT Solvents
 (organic; photoresist composition capable of prevention of formation
 of abnormal photoresist pattern shapes for efficient, high-precision
 formation of fine, high-resolution photoresist patterns in
 manufacturing semiconductor device)
 IT Acids, processes
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or
 engineered material use); PROC (Process); USES (Uses)
 (photoacid generators; photoresist composition capable of prevention
 of formation of abnormal photoresist pattern shapes for efficient,
 high-precision formation of fine, high-resolution photoresist
 patterns in manufacturing semiconductor device)
 IT Charged particles
 Heat treatment
 Ion bombardment
 Ionizing radiation
 MOS transistors
 Magnetic recording heads
 Photolithography
 Photoresists
 Positive photoresists
 Semiconductor device fabrication
 Surfactants
 Vapor pressure
 (photoresist composition capable of prevention of formation of
 abnormal photoresist pattern shapes for efficient, high-precision formation of
 fine, high-resolution photoresist patterns in manufacturing
 semiconductor device)
 IT Carboxylic acids, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (photoresist composition capable of prevention of formation of
 abnormal photoresist pattern shapes for efficient, high-precision formation of
 fine, high-resolution photoresist patterns in manufacturing
 semiconductor device)
 IT Epoxy resins, processes
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or
 engineered material use); PROC (Process); USES (Uses)
 (photoresist composition capable of prevention of formation of
 abnormal photoresist pattern shapes for efficient, high-precision formation of

fine, high-resolution photoresist patterns in manufacturing semiconductor device)

IT Acrylic polymers, processes
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (photoresist; photoresist composition capable of prevention of formation of abnormal photoresist pattern shapes for efficient, high-precision formation of fine, high-resolution photoresist patterns in manufacturing semiconductor device)

IT Cycloalkenes
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (polymers, resins; photoresist composition capable of prevention of formation of abnormal photoresist pattern shapes for efficient, high-precision formation of fine, high-resolution photoresist patterns in manufacturing semiconductor device)

IT Cycloalkenes
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (resins; photoresist composition capable of prevention of formation of abnormal photoresist pattern shapes for efficient, high-precision formation of fine, high-resolution photoresist patterns in manufacturing semiconductor device)

IT Coating process
 (spin; photoresist composition capable of prevention of formation of abnormal photoresist pattern shapes for efficient, high-precision formation of fine, high-resolution photoresist patterns in manufacturing semiconductor device)

IT 7727-37-9D, Nitrogen, compds.
 RL: MOA (Modifier or additive use); USES (Uses)
 (photoresist composition capable of prevention of formation of abnormal photoresist pattern shapes for efficient, high-precision formation of fine, high-resolution photoresist patterns in manufacturing semiconductor device)

IT 50-21-5, Lactic acid, properties 64-18-6, Formic acid, properties 64-19-7, Acetic acid, properties 107-15-3, Ethylenediamine, properties 110-58-7, Pentylamine 111-26-2, Hexylamine
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses)
 (photoresist composition capable of prevention of formation of abnormal photoresist pattern shapes for efficient, high-precision formation of fine, high-resolution photoresist patterns in manufacturing semiconductor device)

IT 66003-78-9 84540-57-8, Propylene glycol monomethyl etheracetate

RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (photoresist composition capable of prevention of formation of abnormal photoresist pattern shapes for efficient, high-precision formation of fine, high-resolution photoresist patterns in manufacturing semiconductor device)

IT 75-59-2, Tetramethylammonium hydroxide
 RL: NUU (Other use, unclassified); RGT (Reagent); RACT (Reactant or reagent); USES (Uses)
 (photoresist composition capable of prevention of formation of abnormal photoresist pattern shapes for efficient, high-precision formation of fine, high-resolution photoresist patterns in manufacturing semiconductor device)

IT 24979-70-2D, Poly(p-hydroxystyrene), t-Boc-protected 256474-97-2, Mevalonic lactone methacrylate- 2-adamantyl methacrylate copolymer
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (photoresist composition capable of prevention of formation of abnormal photoresist pattern shapes for efficient, high-precision formation of fine, high-resolution photoresist patterns in manufacturing semiconductor device)

IT 59269-51-1D, Polyvinylphenol, derivs.
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (photoresist; photoresist composition capable of prevention of formation of abnormal photoresist pattern shapes for efficient, high-precision formation of fine, high-resolution photoresist patterns in manufacturing semiconductor device)

IT 7440-21-3, Polysilicon, processes
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (poly; photoresist composition capable of prevention of formation of abnormal photoresist pattern shapes for efficient, high-precision formation of fine, high-resolution photoresist patterns in manufacturing semiconductor device)

L12 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN
 AN 2007:674058 CAPLUS
 DN 147:82704
 ED Entered STN: 22 Jun 2007
 TI Positive photosensitive resin compositions and their cured films without scums and with good dimensional precision
 IN Kato, Masakazu; Ehara, Kazuya
 PA Nissan Chemical Industries, Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 33pp.

CODEN: JKXXAF
 DT Patent
 LA Japanese
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2007156243	A	20070621	JP 2005-353486	20051207
PRAI	JP 2005-353486		20051207		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2007156243	IPCI	G03F0007-023 [I,A]; G03F0007-038 [I,A]; G03F0007-004 [I,A]; G03F0007-033 [I,A]; H01L0021-027 [I,A]; H01L0021-02 [I,C*]; C08G0073-10 [I,A]; C08G0073-00 [I,C*]
	IPCR	G03F0007-023 [I,C]; G03F0007-023 [I,A]; C08G0073-00 [I,C]; C08G0073-10 [I,A]; G03F0007-004 [I,C]; G03F0007-004 [I,A]; G03F0007-033 [I,C]; G03F0007-033 [I,A]; G03F0007-038 [I,C]; G03F0007-038 [I,A]; H01L0021-02 [I,C]; H01L0021-027 [I,A]
	FTERM	2H025/AA00; 2H025/AA04; 2H025/AA06; 2H025/AA07; 2H025/AA08; 2H025/AA10; 2H025/AA14; 2H025/AB16; 2H025/AB17; 2H025/AC01; 2H025/AD03; 2H025/BE01; 2H025/CB16; 2H025/CB17; 2H025/CB25; 2H025/CB41; 2H025/CB43; 2H025/CB45; 2H025/CB55; 2H025/CC17; 2H025/FA01; 2H025/FA17; 2H025/FA29; 4J043/PA19; 4J043/PC015; 4J043/PC145; 4J043/QB26; 4J043/QB31; 4J043/RA05; 4J043/SA06; 4J043/SA54; 4J043/TA14; 4J043/TA22; 4J043/TA47; 4J043/UA131; 4J043/UA132; 4J043/UB061; 4J043/UB062; 4J043/ZA12; 4J043/ZA15; 4J043/ZA16; 4J043/ZB22
AB	The compns. contain (A) polyamic acids [COR1(CO2H)2CONHR2NH]n (R1 = tetravalent organic group; R2 = bivalent organic group; n ≤ 1000), (B) hydroxystyrene compds. [CH[C6H3(OH)R3]CH2]m (R3 = H, hydroxy, Cl-10 organic group; m = 10-500), and photoacid generators. The compns. are applied on substrates, dried by heat, patternwise exposed, and developed with alkali developers to give relief patterns. Also claimed are semiconductor packages and LED elements having cured films of the compns. as insulator ribs, interlayers, protective films, etc.	
ST	amplified pos photoresist hexafluoroisopropylidenedipthalic anhydride polyamic acid; hydroxystyrene polyamic acid amplified photoresist dimensional precision; water absorption minimized pos photoresist hydroxystyrene polyamic acid	
IT	Epoxy resins, uses RL: MOA (Modifier or additive use); USES (Uses) (crosslinking agents; pos. photoresists containing polyamic acids and hydroxystyrene compds. and forming scum-free patterns with high contrast)	
IT	Phenolic resins, uses RL: TEM (Technical or engineered material use); USES (Uses) (novolak; pos. photoresists containing polyamic acids and hydroxystyrene)	

- comps. and forming scum-free patterns with high contrast)
- IT Electroluminescent devices
(packaging materials for; pos. photoresists containing polyamic acids
and
hydroxystyrene compds. and forming scum-free patterns with high
contrast)
- IT Polysiloxanes, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(polyamic acid-; pos. photoresists containing polyamic acids and
hydroxystyrene compds. and forming scum-free patterns with high
contrast)
- IT Polyamic acids
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(polysiloxane-; pos. photoresists containing polyamic acids and
hydroxystyrene compds. and forming scum-free patterns with high
contrast)
- IT Electronic packaging materials
Positive photoresists
(pos. photoresists containing polyamic acids and hydroxystyrene
comps. and
forming scum-free patterns with high contrast)
- IT 84778-06-3, Epikote 152
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agents; pos. photoresists containing polyamic acids and
hydroxystyrene compds. and forming scum-free patterns with high
contrast)
- IT 20546-03-6D, 1,2-Naphthoquinonediazide-5-sulfonate acid, esters or amides
20680-48-2D, esters or amides 124529-10-8D, esters or amides
RL: CAT (Catalyst use); USES (Uses)
(photoacid generators; pos. photoresists containing polyamic acids and
hydroxystyrene compds. and forming scum-free patterns with high
contrast)
- IT 871918-33-1P 871918-34-2P 871918-36-4P 940948-21-0P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(pos. photoresists containing polyamic acids and hydroxystyrene
comps. and
forming scum-free patterns with high contrast)
- IT 24979-69-9, Poly(m-hydroxystyrene) 149614-53-9,
m-Hydroxystyrene-p-hydroxystyrene copolymer 165039-50-9, Resitop PSF
2808
RL: TEM (Technical or engineered material use); USES (Uses)
(pos. photoresists containing polyamic acids and hydroxystyrene
comps. and
forming scum-free patterns with high contrast)
- L12 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2007:192441 CAPLUS
DN 146:286439
ED Entered STN: 22 Feb 2007
TI Positive photosensitive insulating resin composition and its
cured product for use in passive film applications for electronic
components

IN Sasaki, Hirofumi; Ito, Atsushi; Goto, Hirofumi; Hashiguchi, Yuichi
 PA JSR Corporation, Japan
 SO Eur. Pat. Appl., 26pp.

CODEN: EPXXDW

DI Patent

LA English

CC 76-10 (Electric Phenomena)

Section cross-reference(s): 35, 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1755365	A1	20070221	EP 2006-119171	20060818
	R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
	JP 2007079553	A	20070329	JP 2006-201309	20060724
	US 20070042296	A1	20070222	US 2006-465671	20060818
	US 7332254	B2	20080219		
	KR 2007021966	A	20070223	KR 2006-78270	20060818
PRAI	JP 2005-238853	A	20050819		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	EP 1755365	IPCI	H05K0001-03 [I,A]; H05K0001-00 [I,A]; H05K0003-28 [I,A]; G03F0007-004 [I,A]
		IPCR	H05K0001-03 [I,C]; H05K0001-03 [I,A]; G03F0007-004 [I,C]; G03F0007-004 [I,A]; H05K0001-00 [I,C]; H05K0001-00 [I,A]; H05K0003-28 [I,C]; H05K0003-28 [I,A]
[I,A]			
	JP 2007079553	ECLA	G03F007/023P2; G03F007/022M; G03F007/023P; T05K; T05K
		IPCI	G03F0007-023 [I,A]; G03F0007-004 [I,A]; H01L0021-027 [I,A]; H01L0021-02 [I,C*]; H05K0001-03 [I,A]; C08G0059-62 [I,A]; C08G0059-00 [I,C*]
		IPCR	G03F0007-023 [I,C]; G03F0007-023 [I,A]; C08G0059-00 [I,C]; C08G0059-62 [I,A]; G03F0007-004 [I,C]; G03F0007-004 [I,A]; H01L0021-02 [I,C]; H01L0021-027 [I,A]; H05K0001-03 [I,C]; H05K0001-03 [I,A]
		FTERM	2H025/AA02; 2H025/AA10; 2H025/AA14; 2H025/AA20; 2H025/AB15; 2H025/AB16; 2H025/AC01; 2H025/AD03; 2H025/BE01; 2H025/CB17; 2H025/CB28; 2H025/CB52; 2H025/CC08; 2H025/CC17; 2H025/CC20; 4J036/AB01; 4J036/AD08; 4J036/AF08; 4J036/DB02; 4J036/DB06; 4J036/FA10; 4J036/FA12; 4J036/FB01; 4J036/FB05; 4J036/FB08; 4J036/HA02; 4J036/JA08
	US 20070042296	IPCI	G03C0001-00 [I,A]; G03F0007-023 [I,A]; G03F0007-30 [I,A]
		IPCR	G03C0001-00 [I,C]; G03C0001-00 [I,A]; G03F0007-023 [I,C]; G03F0007-023 [I,A]; G03F0007-30 [I,C]; G03F0007-30 [I,A]
		NCL	430/281.100; 430/018.000; 430/191.000; 430/193.000; 430/280.100; 430/326.000; 430/330.000
		ECLA	G03F007/023P2; G03F007/022M; G03F007/023P; T05K; T05K
	KR 2007021966	IPCI	G03F0007-039 [I,A]; G03F0007-022 [I,A]
AB	The present invention relates to a pos. photosensitive insulating resin composition which is used for an interlayer insulation film (passivation		

layer), an overcoat film, a buffer film or a planarized film of electronic components such as printed circuit boards, semiconductor devices and semiconductor packages, a cured product (insulator) formed by curing the composition, and an electronic component having the cured product. The pos. photosensitive insulating resin composition includes the following: (A) an alkali soluble resin; (B) a compound having a quinonediazide group; and (C) an epoxy resin having a softening point of $\geq 30^\circ$. In addition, the pos. photosensitive insulating resin composition optionally contains other additives such as a phenolic compound; (D) a crosslinking agent; (E) a crosslinking auxiliary; (F) crosslinked fine particles; (G) an adhesion auxiliary; (H) a solvent; (I) a sensitizer; and (J) a leveling agent. The cured product obtained by curing the composition is excellent in resolution, elec. insulation, thermal shock resistance and adhesion, and exhibits reduced deformation after post-baking.

ST photosensitive insulator epoxy resin passive film interlayer dielec

IT Dielectric films (interlayer; pos. photosensitive insulating resin composition and its cured product for use in passive film applications for electronic components)

IT Phenolic resins, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (novolak, cresol-based; alkali soluble resin component of pos. photosensitive insulating resin composition for use in passive film applications for electronic components)

IT Crosslinking agents
 Leveling agents
 Passive films
 (pos. photosensitive insulating resin composition and its cured product for use in passive film applications for electronic components)

IT Epoxy resins, uses
 Phenolic resins, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (pos. photosensitive insulating resin composition and its cured product for use in passive film applications for electronic components)

IT 9003-08-1
 RL: TEM (Technical or engineered material use); USES (Uses)
 (Nikalac MW 390; crosslinking agent component of pos. photosensitive insulating resin composition for use in passive film applications for electronic components)

IT 2530-83-8, A-187
 RL: TEM (Technical or engineered material use); USES (Uses)
 (adhesion auxiliary component of pos. photosensitive insulating resin composition for use in passive film applications for electronic components)

IT 24979-74-6, p-Hydroxystyrene styrene copolymer 59269-51-1,
Polyhydroxystyrene 926924-87-0, 2-Hydroxybutyl
acrylate-p-hydroxystyrene-styrene copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(alkali soluble resin component of pos. photosensitive insulating
resin
composition for use in passive film applications for electronic
components)
IT 425377-30-6, 1,3-Butadiene-hydroxybutyl methacrylate-methacrylic
acid-divinylbenzene copolymer 793678-46-3,
1,3-Butadiene-styrene-hydroxybutyl methacrylate-methacrylic
acid-divinylbenzene copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(crosslinked fine particle component of pos. photosensitive insulating
resin composition for use in passive film applications for electronic
components)
IT 90-02-8, o-Hydroxybenzaldehyde, uses 91-04-3,
2,6-Bis(hydroxymethyl)-p-cresol
RL: TEM (Technical or engineered material use); USES (Uses)
(crosslinking agent component of pos. photosensitive insulating resin
composition for use in passive film applications for electronic
components)
IT 25068-38-6 30401-87-7, Epolite 70P 225111-62-6, XD 1000
244772-00-7,
EHPE3150 254991-55-4, EOCN 4600
RL: TEM (Technical or engineered material use); USES (Uses)
(epoxy resin component of pos. photosensitive insulating
resin composition for use in passive film applications for electronic
components)
IT 932-97-8D, Quinone diazide, derivs.
RL: TEM (Technical or engineered material use); USES (Uses)
(pos. photosensitive insulating resin composition and its cured
product for
use in passive film applications for electronic components)
IT 137902-98-8 143178-45-4
RL: TEM (Technical or engineered material use); USES (Uses)
(quinonediazide component of pos. photosensitive insulating resin
composition for use in passive film applications for electronic
components)
IT 97-64-3, Ethyl lactate 110-43-0, 2-Heptanone
RL: TEM (Technical or engineered material use); USES (Uses)
(solvent component of pos. photosensitive insulating resin
composition for
use in passive film applications for electronic components)
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Inomata Katsumi; US 2004126696 A1 2004 CAPLUS
(2) Ito Nobuyuki; US 2004094752 A1 2004 CAPLUS
(3) Nojima, Y; WO 0241079 A2 2002 CAPLUS
(4) Tokyo Ohka Kogyo Co Ltd; WO 2005052688 A2 2005 CAPLUS

L12 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN
AN 2006:410163 CAPLUS
DN 144:442579
ED Entered STN: 05 May 2006

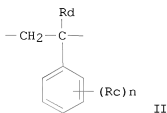
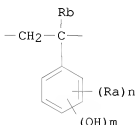
TI Positive photoresist composition containing hydroxystyrene
 copolymers and quinonediazide compound for formation of insulation
 patterns
 IN Ito, Atsushi; Yokoyama, Kenichi; Inomata, Katsumi; Iwanaga, Shin-ichiro
 PA Jsr Corporation, Japan
 SO PCT Int. Appl., 44 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2006046687	A1	20060504	WO 2005-JP19865	20051028
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
JP 2006154779	A	20060615	JP 2005-311849	20051026
JP 2006154780	A	20060615	JP 2005-311850	20051026
EP 1806618	A1	20070711	EP 2005-799121	20051028
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 101048703	A	20071003	CN 2005-80037184	20051028
US 20080097032	A1	20080424	US 2007-718303	20070430
PRAI JP 2004-316655	A	20041029		
JP 2004-316656	A	20041029		
WO 2005-JP19865	W	20051028		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2006046687	IPCI	G03F0007-023 [I,A]; C08F0212-08 [I,A]; C08F0212-14 [I,A]; C08F0212-00 [I,C*]; C08G0008-38 [I,A]; C08G0008-00 [I,C*]; G03F0007-004 [I,A]; H01L0021-027 [I,A]; H01L0021-02 [I,C*]
	IPCR	G03F0007-023 [I,A]; C08F0212-00 [I,C]; C08F0212-08 [I,A]; C08F0212-14 [I,A]; C08G0008-00 [I,C]; C08G0008-38 [I,A]; G03F0007-004 [I,C]; G03F0007-004 [I,A]; G03F0007-023 [I,C]; H01L0021-02 [I,C]; H01L0021-027 [I,A]
	ECLA	C08F212/14; C08F212/12; C08G008/38; G03F007/022M; G03F007/023P; G03F007/075A; G03F007/40
JP 2006154779	IPCI	G03F0007-023 [I,A]; G03F0007-004 [I,A]; G03F0007-075 [I,A]; H01L0021-027 [I,A]; H01L0021-02 [I,C*]
	FTERM	2H025/AA02; 2H025/AA10; 2H025/AA14; 2H025/AA20; 2H025/AB16; 2H025/AB17; 2H025/AC01; 2H025/AD03;

		2H025/BE01; 2H025/BJ03; 2H025/CB11; 2H025/CB14; 2H025/CB16; 2H025/CB17; 2H025/CB54; 2H025/CC03; 2H025/CC06; 2H025/CC08; 2H025/CC17; 2H025/FA17
JP 2006154780	IPCI	G03F0007-023 [I,A]; G03F0007-004 [I,A]; G03F0007-075 [I,A]; H01L0021-027 [I,A]; H01L0021-02 [I,C*]
	FTERM	2H025/AA02; 2H025/AA10; 2H025/AA14; 2H025/AA20; 2H025/AB16; 2H025/AB17; 2H025/AC01; 2H025/AD03; 2H025/BE01; 2H025/BJ03; 2H025/CB11; 2H025/CB14; 2H025/CB16; 2H025/CB17; 2H025/CB54; 2H025/CC03; 2H025/CC06; 2H025/CC17; 2H025/FA17
EP 1806618	IPCI	G03F0007-023 [I,A]; C08F0212-08 [I,A]; C08F0212-14 [I,A]; C08F0212-00 [I,C*]; C08G0008-38 [I,A]; C08G0008-00 [I,C*]; G03F0007-004 [I,A]; H01L0021-027 [I,A]; H01L0021-02 [I,C*]
	ECLA	C08F212/14; C08F212/12; C08G008/38; G03F007/022M; G03F007/023P; G03F007/075A; G03F007/40
CN 101048703	IPCI	G03F0007-023 [I,A]; C08G0008-38 [I,A]; C08G0008-00 [I,C*]; C08F0212-08 [I,A]; G03F0007-004 [I,A]; C08F0212-14 [I,A]; C08F0212-00 [I,C*]; H01L0021-027 [I,A]; H01L0021-02 [I,C*]
	IPCR	G03F0007-023 [I,C]; G03F0007-023 [I,A]
US 20080097032	IPCI	C08G0073-00 [I,A]
	NCL	525/185.000; 525/471.000
GI		



AB Disclosed is a pos. photosensitive insulating resin composition characterized

by containing (A) a copolymer composed of 10-99 mol% of a structural unit represented by the general formula (I) and 90-1 mol% of a structural unit represented by the general formula (II), where Ra and Rc resp. represent an alkyl group having 1-4 carbon atoms, an alkoxy group or an aryl group; Rb and Rd resp. represent a hydrogen atom or a Me group; n represents an integer of 0-3; and m represents an integer of 1-3; (B) a compound having a quinonediazide group; (C) at least one compound selected from the group consisting of aromatic compds. containing a methylol group and/or an alkoxyethyl group (excluding aromatic compds. containing an amino group), aromatic aldehyde compds., aliphatic aldehyde compds., alkyl etherified amino group-containing compds. and epoxy group-containing compds.; (D) a solvent; and (E)

an adhesion improver. Also disclosed is a cured product of such a pos. photosensitive insulating resin composition The cured product is excellent in various characteristics such as resolution, elec. insulation, thermal shock

resistance and adhesiveness.

ST pos photoresist compn hydroxystyrene copolymer quinonediazide compd insulation pattern

IT Electric insulators

Photoimaging materials

Positive photoresists

(pos. photoresist composition containing hydroxystyrene copolymers and quinonediazide compound)

IT 20546-03-6, 1,2-Naphthoquinonediazide-5-sulfonic acid

RL: RCT (Reactant); RACT (Reactant or reagent)

(ester with 1,1-Bis(4-hydroxyphenyl)-1-phenylethane; reactant for quinonediazide compound as component of pos. photoresist composition)

IT 38638-43-6, 1,2-Naphthoquinonediazide-5-sulfonyl chloride

RL: RCT (Reactant); RACT (Reactant or reagent)

(ester with 1,1-bis(4-hydroxyphenyl)-1-phenylethane; reactant for quinonediazide compound as component of pos. photoresist composition)

IT 1571-75-1, 1,1-Bis(4-hydroxyphenyl)-1-phenylethane

RL: RCT (Reactant); RACT (Reactant or reagent)

(ester with 1,2-Naphthoquinonediazide-5-sulfonic acid; reactant for quinonediazide compound as component of pos. photoresist composition)

IT 110726-28-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(ester with 1,2-naphthoquinonediazide-5-sulfonyl chloride; reactant for quinonediazide compound as component of pos. photoresist composition)

IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer

RL: TEM (Technical or engineered material use); USES (Uses)

(phenol resin as component of pos. photoresist composition)

IT 24979-70-2, p-Hydroxystyrene polymer 24979-74-6, p-Hydroxystyrene-styrene copolymer 884624-63-9, p-Hydroxystyrene-styrene-4-hydroxybutyl acrylate copolymer

RL: TEM (Technical or engineered material use); USES (Uses)

(resin component of pos. photoresist composition containing hydroxystyrene copolymers and quinonediazide compound)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Jsr Corp; EP 1469346 A1 2003 CAPLUS
- (2) Jsr Corp; WO 2003062925 A1 2003 CAPLUS
- (3) Jsr Corp; JP 2003215795 A 2003 CAPLUS
- (4) Jsr Corp; US 20040126696 A1 2003 CAPLUS
- (5) Jsr Corp; JP 2004240144 A 2004 CAPLUS
- (6) Shin-Etsu Chemical Co Ltd; JP 11-015163 A 1999 CAPLUS
- (7) Sumitomo Chemical Co Ltd; JP 07-306309 A 1995 CAPLUS
- (8) Toray Industries Inc; JP 2003075997 A 2003 CAPLUS

L12 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2005:1050911 CAPLUS

DN 143:348746

ED Entered STN: 30 Sep 2005

10 580065

TI producing a crosslinked coating in the manufacture of integrated circuits
IN Hessel, Edward T.; Abramshe, Richard; Subrayan, Ramachandran P.;
Ravichandran, Ramanathan
PA USA
SO U.S. Pat. Appl. Publ., 34 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM C08K005-07
INCL 525162000
CC 42-3 (Coatings, Inks, and Related Products)
Section cross-reference(s): 74, 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20050215713	A1	20050929	US 2005-93105	20050328
	WO 2005097883	A2	20051020	WO 2005-US10260	20050328
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,			
ZW	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRAI	US 2004-556720P	P	20040326		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 20050215713	ICM	C08K005-07
	INCL	525162000
	IPCI	C08K0005-07 [ICM,7]; C08K0005-00 [ICM,7,C*]
	IPCR	C08G0059-00 [I,C*]; C08G0059-68 [I,A]; C08K0005-00 [N,C*]; C08K0005-00 [N,A]; C08K0005-07 [I,A]
	NCL	525/162.000
	ECLA	C08G059/68F; M08K
WO 2005097883	IPCI	C08K0005-07 [ICM,7]; C08K0005-00 [ICM,7,C*]
	IPCR	C08K0005-00 [N,C*]; C08K0005-07 [I,A]; C08K0005-42 [N,A]; C08L0061-00 [N,C*]; C08L0061-20 [N,A]; C08L0083-00 [N,C*]; C08L0083-00 [N,A]; C09D0004-00 [I,C*]; C09D0004-00 [I,A]; C09D0167-00 [I,C*]; C09D0167-00 [I,A]; C09D0183-04 [I,C*]; C09D0183-04 [I,A]; G03F0007-09 [N,C*]; G03F0007-09 [N,A]; G03F0007-11 [N,C*]; G03F0007-11 [N,A]; H01L0021-02 [I,C*]; H01L0021-312 [I,A]
	ECLA	C09D183/04; C09D004/00; C09D167/00; C09D167/00+B4B; C09D167/00+B4S; H01L021/312B2B; M08K; M08L; M08L;

S03F;

S03F

OS MARPAT 143:348746

AB Thermally curable coating composition are for pos. photoresists layers,

underlayers for multiple layer resists, antireflective coatings, bottom layer antireflective coatings, dielec. layers, photoresist layers, hard mask etch stops, and in the manufacture of integrated circuits. More particularly, thermally activated latent acid or a thermal acid generator,

a N-benzylpyridinium or N-benzylanilinium salt of a strong acid, act as a catalyst in a polymerizable composition suitable for preparing such coatings and layers. The novel compns. comprise benzylpyridinium and benzylanilinium salts of a strong acid, such as sulfonic acid or disulfonic acid as thermal acid generators.

ST coating crosslinking catalyst latent acid salt; thermal acid generator crosslinking catalyst coating

IT Epoxy resins, uses
Polysiloxanes, uses
Silsesquioxanes
RL: POF (Polymer in formulation); RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
(binder; for thermally curable coating in manufacture of integrated circuits, photoresists and the like)

IT Antireflective films
Integrated circuits
Positive photoresists
(for thermally curable coating in manufacture of integrated circuits, photoresists and the like)

IT Crosslinking catalysts
(latent; for thermally curable coating in manufacture of integrated circuits, photoresists and the like)

IT Coating materials
(solvent-resistant; for thermally curable coating in manufacture of integrated circuits, photoresists and the like)

IT 59269-51-1, Poly(hydroxystyrene) 105727-07-9, Hydroxystyrene-methyl methacrylate copolymer
RL: POF (Polymer in formulation); RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
(binder; for thermally curable coating in manufacture of integrated circuits, photoresists and the like)

IT 178953-33-8, N-(4-Methoxybenzyl)-N,N-dimethylanilinium triflate 865606-05-9, N-(Benzyl)-N,N-dimethylanilinium triflate 865606-06-0, N-(4-Methylbenzyl)-N,N-dimethylanilinium triflate 865606-07-1, N-(4-Nitrobenzyl)-N,N-dimethylanilinium nonaflate 865606-09-3 865718-01-0
RL: CAT (Catalyst use); USES (Uses)
(for thermally curable coating in manufacture of integrated circuits, photoresists and the like)

IT 865606-10-6P, 4-Hydroxystyrene-Powderlink 1174 copolymer 865606-11-7P, Dimethyl isophthalate-dimethyl phthalate-glycerol-Powderlink 1174-1,3,5-tris(2-hydroxyethyl)isocyanuric acid copolymer 865606-12-8P, 2-Hydroxyethyl methacrylate-isobornyl methacrylate-POWDERLINK 1174 copolymer
RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(for thermally curable coating in manufacture of integrated circuits,

photoresists and the like)
 IT 25085-98-7, ERL 4221
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process);
 USES
 (Uses)
 (for thermally curable coating in manufacture of integrated circuits, photoresists and the like)
 IT 106643-68-9P, 2-Hydroxyethyl methacrylate-isobornyl methacrylate copolymer
 503178-83-4P, Dimethyl isophthalate-dimethyl phthalate-glycerol-1,3,5-tris(2-hydroxyethyl)isocyanuric acid copolymer
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation);
 RACT
 (Reactant or reagent)
 (for thermally curable coating in manufacture of integrated circuits, photoresists and the like)

L12 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2004:801669 CAPLUS

DN 141:322569

ED Entered STN: 01 Oct 2004

TI Photolithographic image formation method showing excellent safelight stability and etching stability

IN Urano, Toshiyoshi; Uematsu, Takuya; Mizuho, Yuji

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 70 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-09

ICS G03F007-00; G03F007-004; G03F007-039; G03F007-20; G03F007-32;
 H01L021-027; G02B005-20

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004272182	A	20040930	JP 2003-118423	20030423
PRAI	JP 2002-122983	A	20020424		
	JP 2003-5248	A	20030114		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2004272182	ICM	G03F007-09
	ICS	G03F007-00; G03F007-004; G03F007-039; G03F007-20; G03F007-32; H01L021-027; G02B005-20
	IPCI	G03F0007-09 [ICM,7]; G03F0007-00 [ICS,7]; G03F0007-004 [ICS,7]; G03F0007-039 [ICS,7]; G03F0007-20 [ICS,7]; G03F0007-32 [ICS,7]; H01L0021-027 [ICS,7]; H01L0021-02 [ICS,7,C*]; G02B0005-20 [ICS,7]
	IPCR	G02B0005-20 [N,A]; G02B0005-20 [N,C*]; G03F0007-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-039 [I,A]; G03F0007-039

[I,C*]; G03F0007-09 [I,A]; G03F0007-09 [I,C*];
G03F0007-20 [I,A]; G03F0007-20 [I,C*]; G03F0007-32
[I,A]; G03F0007-32 [I,C*]; H01L0021-02 [I,C*];
H01L0021-027 [I,A]

FTERM 2H025/AA00; 2H025/AA04; 2H025/AA13; 2H025/AA14;
2H025/AB09; 2H025/AB13; 2H025/AB14; 2H025/AB15;
2H025/AB16; 2H025/AB17; 2H025/AC08; 2H025/AD01;
2H025/AD03; 2H025/BC13; 2H025/BC42; 2H025/BE00;
2H025/BE01; 2H025/BE10; 2H025/BG00; 2H025/CA00;
2H025/CB08; 2H025/CB13; 2H025/CB14; 2H025/CB43;
2H025/CB45; 2H025/CC11; 2H025/DA18; 2H025/DA19;
2H025/DA20; 2H025/EA10; 2H025/FA01; 2H025/FA10;
2H025/FA17; 2H048/BA45; 2H048/BA48; 2H096/AA06;
2H096/AA23; 2H096/AA25; 2H096/AA26; 2H096/AA27;
2H096/AA28; 2H096/BA05; 2H096/BA10; 2H096/BA11;
2H096/DA02; 2H096/EA04; 2H096/EA23; 2H096/GA08;
2H096/GA09; 2H096/GA10; 2H097/AA03; 2H097/CA17;
2H097/LA09; 2H097/LA10; 2H097/LA11; 2H097/LA17

AB The title photolithog. imaging method includes a process for scanning
exposure of an alkaline-developable photoresist layer on a support by
350-430 nm semiconductor laser light or 650-1300 nm semiconductor laser light,
and a process for alkaline-development of the exposed photoresist layer,
wherein the support satisfies the following conditions: (1) the support shows a
surface peel strength of <600 g/cm and/or (2) the support shows a
relative surface peel strength of 0.5-6. The support surface may be made up of Cu
or glass. The photoresist layer may be made up of specified pos. working
photoresist comps.

ST photolithog imaging dry film photoresist support surface peel strength

IT Photoresists
(dry-film; photolithog. image formation method showing excellent
safelight stability and etching stability)

IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(epoxy, novolak; alkaline soluble resin in pos. working photoresist
composition for photolithog. imaging)

IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(novolak; alkaline soluble resin in pos. working photoresist
composition for
photolithog. imaging)

IT Adhesion, physical
(peel strength, photoresist support; photolithog. image formation
method showing excellent safelight stability and etching stability)

IT Epoxy resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(phenolic, novolak; alkaline soluble resin in pos. working
photoresist composition
for photolithog. imaging)

IT Photoimaging
Photolithography
Positive photoresists

- (photolithog. image formation method showing excellent safelight stability and etching stability)
- IT Glass, properties
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (photoresist support showing specified surface peel strength for photolithog. imaging)
- IT 24979-70-2D, Maruka Lyncur S 2P, partially acetylated
 25987-66-0, Butyl acrylate-methacrylic acid-methyl methacrylate-styrene copolymer 35464-74-5, m-Cresol-p-cresol-formaldehyde-phenol copolymer 59269-51-1, Polyvinylphenol 72317-19-2, Hydroxystyrene-styrene copolymer
 105727-07-9, Hydroxystyrene-methyl methacrylate copolymer 132011-04-2, 3,4-Epoxy cyclohexylmethyl acrylate-methacrylic acid-methyl methacrylate copolymer 464885-81-2, tert-Butyl methacrylate-glycidyl methacrylate-methacrylic acid-styrene copolymer 765950-88-7, Acrylic acid-3,4-epoxycyclohexylmethyl acrylate- α -methylstyrene-styrene copolymer 765950-91-2, Butyl acrylate-3,4-epoxycyclohexylmethyl acrylate-methacrylic acid-methyl methacrylate copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (alkaline soluble resin in pos. working photoresist composition for photolithog. imaging)
- IT 24599-21-1 25852-47-5, Light Ester 9EG 29570-58-9, Dipentaerythritol hexaacrylate 32435-46-4 41637-38-1, Light Ester BP 6EM 77001-81-1
 RL: TEM (Technical or engineered material use); USES (Uses)
 (ethylenic unsatd. compound in pos. working photoresist composition for photolithog. imaging)
- IT 68584-99-6, Acetone-pyrogallol copolymer
 o-naphthoquinonediazide-5-sulfonate
 RL: TEM (Technical or engineered material use); USES (Uses)
 (in pos. working photoresist composition for photolithog. imaging)
- IT 85342-62-7 672308-17-7
 RL: CAT (Catalyst use); USES (Uses)
 (photoacid generator in pos. working photoresist composition for photolithog. imaging)
- IT 1707-68-2, 2,2'-Bis(o-chlorophenyl)-4,4',5,5'-tetraphenylbiimidazole 3584-23-4, 2-(p-Methoxyphenyl)-4,6-bis(trichloromethyl)-s-triazine 766509-00-6
 RL: CAT (Catalyst use); USES (Uses)
 (photopolymn. initiator in pos. working photoresist composition for photolithog. imaging)
- IT 7440-50-8, Copper, properties
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (photoresist support showing specified surface peel strength for photolithog. imaging)
- IT 765950-85-4
 RL: TEM (Technical or engineered material use); USES (Uses)
 (photothermal conversion compound in pos. working photoresist composition for photolithog. imaging)
- IT 90-93-7, 4,4'-Bis(diethylamino)benzophenone 26050-81-7 367965-49-9 661474-57-3 661474-59-5 765950-87-6 765950-89-8 765950-90-1

RL: TEM (Technical or engineered material use); USES (Uses)
(sensitizer in pos. working photoresist composition for photolithog.
imaging)

L12 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2002:153058 CAPLUS

DN 136:207722

ED Entered STN: 28 Feb 2002

TI Positive-working lithographic master plate having specific
siloxane resin in recording layer for IR-laser direct imaging

IN Oda, Akio; Nakamura, Ippai

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-075

ICS B41C001-055; B41N001-14; C08L061-14; G03F007-00; G03F007-004;
C08K005-00; C08L0101-02

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002062660	A	20020228	JP 2000-246687	20000816
PRAI JP 2000-246687		20000816		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2002062660	ICM	G03F007-075
	ICS	B41C001-055; B41N001-14; C08L061-14; G03F007-00; G03F007-004; C08K005-00; C08L0101-02
	IPCI	G03F0007-075 [ICM, 7]; B41C0001-055 [ICS, 7];
B41N0001-14		[ICS, 7]; B41N0001-12 [ICS, 7, C*]; C08L0061-14 [ICS, 7]; C08L0061-00 [ICS, 7, C*]; G03F0007-00 [ICS, 7]; G03F0007-004 [ICS, 7]; C08K0005-00 [ICS, 7]; C08L0101-02 [ICS, 7]; C08L0101-00 [ICS, 7, C*]
	IPCR	G03F0007-075 [I, C*]; G03F0007-075 [I, A]; B41C0001-055 [I, C*]; B41C0001-055 [I, A]; B41N0001-12 [I, C*]; B41N0001-14 [I, A]; C08K0005-00 [I, C*]; C08K0005-00 [I, A]; C08L0061-00 [I, C*]; C08L0061-14 [I, A]; C08L0101-00 [I, C*]; C08L0101-02 [I, A]; G03F0007-00 [I, C*]; G03F0007-00 [I, A]; G03F0007-004 [I, C*]; G03F0007-004 [I, A]

AB The title master plate has a pos.-working recording layer containing a
water-insol. alkali-soluble resin, which increases the solubility in an
alkali by
IR irradiation, and an IR-absorbing agent on a support, wherein the
resin has
a siloxane structure. The master plate, which has the siloxane resin in
the recording layer, provides the improved latitude for development and
the high scratch-resistance.

ST pos lithog master plate siloxane resin laser imaging

IT Phenolic resins, preparation

- RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(novolak; resin having siloxane structure in pos.-working lithog. master plate)
- IT Light-sensitive materials
Lithographic plates
(pos.-working lithog. master plate having specific siloxane resin in recording layer for IR-laser direct imaging)
- IT Polysiloxanes, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(terminated with epoxy groups, reaction product with novolak resin; resin having siloxane structure in pos.-working lithog. master plate)
- IT 63-74-1, p-Aminobenzenesulfonamide 79-41-4, Methacrylic acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(resin having siloxane structure in pos.-working lithog. master plate)
- IT 56992-87-1P, N-(p-Aminosulfonylphenyl)methacrylamide 401606-76-6P, N-(p-Aminosulfonylphenyl)methacrylamide-ethyl methacrylate-acrylonitrile-3-[Tris(trimethylsiloxy)silyl]propyl methacrylate copolymer
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(resin having siloxane structure in pos.-working lithog. master plate)
- IT 24979-70-2DP, p-Hydroxystyrene homopolymer, ethers with silicone resin terminated with epoxy groups 27029-76-1DP, m-Cresol-p-cresol-formaldehyde copolymer, ethers with silicone resin terminated with epoxy groups
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(resin having siloxane structure in pos.-working lithog. master plate)

L12 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2001:431735 CAPLUS

DN 135:47021

ED Entered STN: 14 Jun 2001

TI Iodonium salts as latent acid scavengers

IN Schulz, Reinhard; Birbaum, Jean-Luc; Wolf, Jean-Pierre; Ilg, Stephan;

Yamato, Hitoshi; Asakura, Toshikage

PA Ciba Specialty Chemicals Holding Inc., Switz.

SO Ger. Offen., 36 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C07C025-00

ICS G03F007-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 25, 35, 42, 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10063066	A1	20010613	DE 2000-10063066	20001218
	SG 98433	A1	20030919	SG 2000-7090	20001129
	BE 1013871	A3	20021105	BE 2000-788	20001214
	IT 2000MI2715	A1	20020617	IT 2000-MI2715	20001215

IT 1319694	B1	20031023		
CH 694562	A5	20050331	CH 2000-2452	20001215
FI 2000002767	A	20010622	FI 2000-2767	20001218
GB 2357759	A	20010704	GB 2000-30716	20001218
GB 2357759	B	20020220		
SE 2000004681	A	20010709	SE 2000-4681	20001218
SE 522682	C2	20040224		
US 6306555	B2	20011023	US 2000-740205	20001218
US 20010036591	A1	20011101		
CA 2328819	A1	20010621	CA 2000-2328819	20001219
CA 2328819	C	20081104		
FR 2802539	A1	20010622	FR 2000-16562	20001219
FR 2802539	B1	20040611		
JP 2001181221	A	20010703	JP 2000-385247	20001219
ES 2181563	A1	20030216	ES 2000-3039	20001219
ES 2181563	B1	20040401		
TW 225183	B	20041211	TW 2000-89127148	20001219
AT 2001000011	A	20050415	AT 2001-11	20001219
AT 413103	B	20051115		
CZ 299309	B6	20080611	CZ 2000-4772	20001219
CN 1306224	A	20010801	CN 2000-135494	20001220
CN 1213343	C	20050803		
NL 1016959	A1	20010625	NL 2000-1016959	20001221
NL 1016959	C2	20020827		
BR 2000006227	A	20020730	BR 2000-6227	20001221
AU 778995	B2	20041223	AU 2000-72459	20001221
KR 753350	B1	20070830	KR 2000-79497	20001221
AT 2003000421	A	20040715	AT 2003-421	20030317
AT 412427	B	20050225		
PRAI CH 1999-2343	A	19991221		
AT 2001-11	A	20001219		
CLASS				
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES		
DE 10063066	ICM	C07C025-00		
	ICS	G03F007-00		
	IPCI	C07C0025-00 [ICM,7]; G03F0007-00 [ICS,7]		
	IPCR	C07C0017-00 [I,C*]; C07C0017-00 [I,A]; C07C0025-00 [I,C*]; C07C0025-18 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-68 [I,A]; C08G0065-00 [I,C*]; C08G0065-10 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]		
	ECLA	C07C017/00+25/18; C07C025/18; C08G059/68; C08G065/10P; G03F007/004D; G03F007/038; G03F007/038C; G03F007/039C; M07C		
SG 98433	IPCI	G03F0007-029 [ICM,7]; G03F0007-038 [ICS,7];		
C07C0025-00		[ICS,7]; C07C0025-18 [ICS,7]		
	IPCR	C07C0017-00 [I,C*]; C07C0017-00 [I,A]; C07C0025-00 [I,C*]; C07C0025-18 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-68 [I,A]; C08G0065-00 [I,C*]; C08G0065-10 [I,A];		

		G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]
	ECLA	C07C017/00+25/18; C07C025/18; C08G059/68; C08G065/10P; G03F007/004D; G03F007/038; G03F007/038C; G03F007/039C
BE 1013871	IPCI	G03F0007-029 [ICM,7]; G08G0059-68 [ICS,7]; C07C0025-18 [ICS,7]; C07C0025-00 [ICS,7,C*]; C07C0017-00 [ICS,7]
	IPCR	C07C0017-00 [I,C*]; C07C0017-00 [I,A]; C07C0025-00 [I,C*]; C07C0025-18 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-68 [I,A]; C08G0065-00 [I,C*]; C08G0065-10 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]
	ECLA	C07C017/00+25/18; C07C025/18; C08G059/68; C08G065/10P; G03F007/004D; G03F007/038; G03F007/038C; G03F007/039C; M07C
IT 2000MI2715	IPCI	G03F [ICS,4]; G03F [ICS,4]
	IPCR	C07C0017-00 [I,C*]; C07C0025-00 [I,C*]; C08F0002-46 [I,C*]; C08G0059-00 [I,C*]; C08G0065-00 [I,C*]; G03F0007-004 [I,C*]; G03F0007-029 [I,C*]; G03F0007-038 [I,C*]; C07C0017-00 [I,A]; C07C0025-18 [I,A]; C08F0002-50 [I,A]; C08G0059-68 [I,A]; C08G0065-10 [I,A]; G03F0007-004 [I,A]; G03F0007-029 [I,A]; G03F0007-038 [I,A]
	ECLA	C07C017/00+25/18; C07C025/18; C08G059/68; C08G065/10P; G03F007/004D; G03F007/038; G03F007/038C; G03F007/039C; M07C
CH 694562	IPCI	C07C0025-18 [ICM,7]; C07C0025-00 [ICM,7,C*]; G03F0007-029 [ICS,7]; G03C0009-08 [ICS,7]; G03C0009-00 [ICS,7,C*]
	ECLA	C07C025/18; C08G059/68; G03F007/004D; G03F007/038; G03F007/038C; G03F007/039C; M07C
FI 2000002767	IPCI	C08F [ICM,7]
	IPCR	C07C0017-00 [I,C*]; C07C0017-00 [I,A]; C07C0025-00 [I,C*]; C07C0025-18 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-68 [I,A]; C08G0065-00 [I,C*]; C08G0065-10 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]
	ECLA	C07C017/00+25/18; C07C025/18; C08G059/68; C08G065/10P; G03F007/004D; G03F007/038; G03F007/038C; G03F007/039C; M07C
GB 2357759	IPCI	C07C0025-18 [ICM,7]; C07C0025-00 [ICM,7,C*]; G03F0007-029 [ICS,7]
	IPCR	C07C0017-00 [I,C*]; C07C0017-00 [I,A]; C07C0025-00 [I,C*]; C07C0025-18 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-68 [I,A]; C08G0065-00 [I,C*]; C08G0065-10 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]

		G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]
	ECLA	C07C017/00+25/18; C07C025/18; C08G059/68; C08G065/10P; G03F007/004D; G03F007/038; G03F007/038C; G03F007/039C
SE 2000004681	IPCI	G03F0007-029 [ICM,7]
	IPCR	C07C0017-00 [I,C*]; C07C0017-00 [I,A]; C07C0025-00 [I,C*]; C07C0025-18 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-68 [I,A]; C08G0065-00 [I,C*]; C08G0065-10 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]
	ECLA	C07C017/00+25/18; C07C025/18; C08G059/68; C08G065/10P; G03F007/004D; G03F007/038; G03F007/038C; G03F007/039C; M07C
US 6306555	IPCI	G03F0007-004 [ICM,7]
	IPCR	C07C0017-00 [I,C*]; C07C0017-00 [I,A]; C07C0025-00 [I,C*]; C07C0025-18 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-68 [I,A]; C08G0065-00 [I,C*]; C08G0065-10 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]
	NCL	430/270.100; 430/914.000; 522/031.000; 556/064.000; 568/001.000; 568/006.000; 568/016.000; 568/028.000; 430/281.100; 430/926.000
	ECLA	C07C017/00+25/18; G03F007/004D; G03F007/038; C07C025/18; C08G059/68; C08G065/10P; G03F007/038C; G03F007/039C; M07C
CA 2328819	IPCI	C07C0025-18 [I,A]; C07C0025-00 [I,C*]; C07C0309-19 [I,A]; C07C0309-30 [I,A]; C07C0309-00 [I,C*]; C08F0002-46 [I,A]; C08G0059-68 [N,A]; C08G0059-00 [N,C*]; C08G0065-10 [N,A]; C08G0065-00 [N,C*]; C08J0003-20 [I,A]; C08J0003-24 [I,A]; C09D0007-12 [I,A]; G03F0007-004 [I,A]; G03F0007-031 [I,A]; G03F0007-038 [I,A]
	IPCR	C07C0025-00 [I,C]; C07C0025-18 [I,A]; C07C0017-00 [I,C*]; C07C0017-00 [I,A]; C07C0309-00 [I,C]; C07C0309-19 [I,A]; C07C0309-30 [I,A]; C08F0002-46 [I,C]; C08F0002-46 [I,A]; C08F0002-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-68 [I,A]; C08G0065-00 [I,C*]; C08G0065-10 [I,A]; C08J0003-20 [I,C]; C08J0003-20 [I,A]; C08J0003-24 [I,C]; C08J0003-24 [I,A]; C09D0007-12 [I,C]; C09D0007-12 [I,A]; G03F0007-004 [I,C]; G03F0007-004 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]; G03F0007-031 [I,C]; G03F0007-031 [I,A]; G03F0007-038 [I,C]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]
	ECLA	C07C017/00+25/18; C07C025/18; C08G059/68; C08G065/10P; G03F007/004D; G03F007/038; G03F007/038C; G03F007/039C
FR 2802539	IPCI	C08F0002-50 [ICM,7]; C08F0002-46 [ICM,7,C*]; C08G0059-68 [ICS,7]; C08G0059-00 [ICS,7,C*]; G03F0007-029 [ICS,7]; G03F0007-039 [ICS,7];

G03C0009-08

[ICS,7]; G03C0009-00 [ICS,7,C*]; C07C0025-02 [ICS,7];
C07C0025-00 [ICS,7,C*]; C07F0009-06 [ICS,7];
C07F0009-00 [ICS,7,C*]

IPCR C07C0017-00 [I,C*]; C07C0017-00 [I,A]; C07C0025-00 [I,C*]; C07C0025-18 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-68 [I,A]; C08G0065-00 [I,C*]; C08G0065-10 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]

ECLA C07C017/00+25/18; C07C025/18; C08G059/68; C08G065/10P; G03F007/004D; G03F007/038; G03F007/038C; G03F007/039C; M07C

JP 2001181221 IPCI C07C0025-18 [ICM,7]; C07C0025-00 [ICM,7,C*]; G03F0007-004 [ICS,7]; G03F0007-029 [ICS,7]

IPCR C07C0017-00 [I,C*]; C07C0017-00 [I,A]; C07C0025-00 [I,C*]; C07C0025-18 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-68 [I,A]; C08G0065-00 [I,C*]; C08G0065-10 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]

ES 2181563 IPCI C08F0002-50 [ICM,7]; C08F0002-46 [ICM,7,C*]; G03F0007-029 [ICS,7]

IPCR C07C0017-00 [I,C*]; C07C0017-00 [I,A]; C07C0025-00 [I,C*]; C07C0025-18 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-68 [I,A]; C08G0065-00 [I,C*]; C08G0065-10 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]

ECLA C07C017/00+25/18; C07C025/18; C08G059/68; C08G065/10P; G03F007/004D; G03F007/038; G03F007/038C; G03F007/039C; M07C

TW 225183 IPCI G03F0007-004 [ICM,7]

IPCR C07C0017-00 [I,C*]; C07C0017-00 [I,A]; C07C0025-00 [I,C*]; C07C0025-18 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-68 [I,A]; C08G0065-00 [I,C*]; C08G0065-10 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]

AT 2001000011 IPCI C08K0005-03 [ICM,7]; C08K0005-00 [ICM,7,C*]; C08F0002-44 [ICS,7]; G03F0007-00 [ICS,7]

ECLA C07C017/00+25/18; C07C025/18; C08G059/68; C08G065/10P; G03F007/004D; G03F007/038; G03F007/038C; G03F007/039C; M07C

CZ 299309 IPCI G03F0001-12 [I,C]; G03F0001-12 [I,A]; C07C0025-00 [I,C]; C07C0025-18 [I,A]; G03F0007-004 [I,C]; G03F0007-004 [I,A]; G03F0007-029 [I,C]; G03F0007-029 [I,A]

	IPCR	G03F0001-12 [I,C]; G03F0001-12 [I,A]; C07C0017-00 [I,C*]; C07C0017-00 [I,A]; C07C0025-00 [I,C]; C07C0025-18 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-68 [I,A]; C08G0065-00 [I,C*]; C08G0065-10 [I,A]; G03F0007-004 [I,C]; G03F0007-004 [I,A]; G03F0007-029 [I,C]; G03F0007-029 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]
	ECLA	C07C017/00+25/18; C07C025/18; C08G059/68; C08G065/10P; G03F007/004D; G03F007/038; G03F007/038C; G03F007/039C; M07C
CN 1306224 C08F0002-50	IPCI	G03F0007-029 [ICM,7]; G03F0007-004 [ICS,7]; [ICS,7]; C08F0002-46 [ICS,7,C*]
	IPCR	C07C0017-00 [I,C*]; C07C0017-00 [I,A]; C07C0025-00 [I,C*]; C07C0025-18 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-68 [I,A]; C08G0065-00 [I,C*]; C08G0065-10 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]
	ECLA	C07C017/00+25/18; C07C025/18; C08G059/68; C08G065/10P; G03F007/004D; G03F007/038; G03F007/038C; G03F007/039C; M07C
NL 1016959	IPCI	C07C0025-18 [ICM,7]; C07C0025-00 [ICM,7,C*]; C08F0002-50 [ICS,7]; C08F0002-46 [ICS,7,C*]; C08G0059-68 [ICS,7]; C08G0059-00 [ICS,7,C*]; C08G0085-00 [ICS,7]; C08K0005-03 [ICS,7]; C08K0005-00 [ICS,7,C*]; C09D0011-10 [ICS,7]; G03F0007-029 [ICS,7]; G03F0007-038 [ICS,7]
	IPCR	C07C0017-00 [I,C*]; C07C0017-00 [I,A]; C07C0025-00 [I,C*]; C07C0025-18 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-68 [I,A]; C08G0065-00 [I,C*]; C08G0065-10 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]
	ECLA	C07C017/00+25/18; C07C025/18; C08G059/68; C08G065/10P; G03F007/004D; G03F007/038; G03F007/038C; G03F007/039C; M07C
BR 2000006227	IPCI	G03F0007-004 [ICM,7]
	IPCR	C07C0017-00 [I,C*]; C07C0017-00 [I,A]; C07C0025-00 [I,C*]; C07C0025-18 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-68 [I,A]; C08G0065-00 [I,C*]; C08G0065-10 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]
	ECLA	C07C017/00+25/18; C07C025/18; C08G059/68; C08G065/10P; G03F007/004D; G03F007/038; G03F007/038C; G03F007/039C; M07C
AU 778995	IPCI	C07C0025-18 [ICM,7]; C07C0025-00 [ICM,7,C*];

G03F0007-029 [ICS,7]; G03F0007-038 [ICS,7]
 IPCR C07C0017-00 [I,C*]; C07C0017-00 [I,A]; C07C0025-00 [I,C*]; C07C0025-18 [I,A]; C08F0002-46 [I,C*]; C08F0002-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-68 [I,A]; C08G0065-00 [I,C*]; C08G0065-10 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-029 [I,C*]; G03F0007-029 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]
 ECLA C07C017/00+25/18; C07C025/18; C08G059/68; C08G065/10P; G03F007/004D; G03F007/038; G03F007/038C; G03F007/039C; M07C
 KR 753350 IPCI G03F0007-004 [I,A]
 AT 2003000421 IPCI G03C0001-73 [ICM]; C08F0002-50 [ICS]; C08F0002-46 [ICS,C*]; G03F0007-00 [ICS]

OS MARPAT 135:47021
 AB Storage-stable, radiation-sensitive composition containing (a1) compound polymerizable with cationic or acid catalysts, e.g., a cycloaliph. epoxy compound a glycidyl ether, etc., (a2) a compound the solubility of which increases in an acid-containing developer, e.g., a functionalized cycloaliph. copolymer, maleic anhydride-containing copolymer, (meth)acrylate ester-containing copolymer, etc., and (b) ≥ 1 iodonium salt [RR1C6H3I+C6H4R2] A- (I; R = C3-20 branched alkyl, C3-8 cycloalkyl; R1 = H, linear C1-20 alkyl; branched C3-20 alkyl; C3-8 cycloalkyl; the sum of atoms in R and R1 ≥ 4 ; R2 = linear C1-10 alkyl, branched C3-10 alkyl, C3-8 cycloalkyl; A = non-nucleophilic anion selected from BF4 SbF6, PF6, C1-20 alkylsulfonate, unsubstituted C6-10 arylsulfonate, etc.; a proviso is given) and the use of I as photo-latent acid scavenger or for increasing solubility of compds. in acid-containing developers is claimed. Also claimed are a photopolymn./crosslinking process using I, a substrate coated with a title composition, photoresists containing I and the use of I in lacquers, printing inks and plates, stereolithog. resins, adhesives, etc. For example, adding 94.7 g (NH4)2S2O8 in portions to a cooled (<15°) mixture of 45.22 g p-IC6H4Me and 29.2 g Me2CCH2Ph in 326 g 75% H2SO4, stirring the mixture for 5 h at ambient temperature, adding the mixture over 40 min at 5-10° to a stirred suspension of 38.18 g KPFF6 in 600 mL H2O and 500 mL EtOAc, keeping the whole for 1.5 h at ambient temperature and separating the phases gave 89 g crude I (R = Me, R1 = H, R2 = Me2CCH2, A = PF6) (II). Chromatog. pure II (crystallized from CHCl3/hexane) melted at 90-92°. A composition containing Araldite GY 250, trimethylolpropane triglycidyl ether (Grinolit V 5131), C12-14 alkyl glycidyl ether (Grinolit Epoxide 8), TiO2, Quantacure ITX sensitizer and 1.5% II was photocured at 10 m/min to give a high-gloss film.
 ST iodonium salt prepn latent acid scavenger; photopolymn catalyst diaryliodonium salt prepn; crosslinking photochem catalyst prepn diaryliodonium salt; isobutylphenyl tolyliodonium hexafluorophosphate

prepn epoxy resin photochem crosslinking catalyst

IT Phenolic resins, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (aminoplast-, photoresist component; preparation of iodonium salts as
 latent acid scavengers for use in)

IT Photoresists
 (chemical reinforced; preparation of iodonium salts as latent acid
 scavengers)

IT Soybean oil
 RL: TEM (Technical or engineered material use); USES (Uses)
 (epoxidized, coatings, crosslinked, Edenol D 81; preparation of
 iodonium salts as latent acid scavengers for use in)

IT Inks
 (flexog.; preparation of iodonium salts as latent acid scavengers for
 use in)

IT Onium compounds
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);
 USES (Uses)
 (iodonium, aryl; preparation of iodonium salts as latent acid
 scavengers)

IT Epoxy resins, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (phenolic, novolak, photoresist component; preparation of iodonium
 salts as latent acid scavengers for use in)

IT Aminoplasts
 RL: TEM (Technical or engineered material use); USES (Uses)
 (phenolic, photoresist component; preparation of iodonium salts as
 latent acid scavengers for use in)

IT Crosslinking catalysts
 (photochem.; preparation of iodonium salts as latent acid scavengers)

IT Polymerization catalysts
 (photopolymn.; preparation of iodonium salts as latent acid
 scavengers)

IT Coating materials
 (powder; preparation of iodonium salts as latent acid scavengers)

IT Adhesives
 Dental materials and appliances
 Lacquers
 Negative photoresists
 Photolithography
 Positive photoresists
 Printing plates
 Release coatings
 (preparation of iodonium salts as latent acid scavengers)

IT Acids, miscellaneous
 RL: MSC (Miscellaneous)
 (preparation of iodonium salts as latent acid scavengers)

IT Inks
 (printing; preparation of iodonium salts as latent acid scavengers)

IT Photolithography

Stereolithography
(stereophotolithog.; preparation of iodonium salts as latent acid scavengers)

IT 624-31-7, 4-Iodotoluene
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation with benzene derivs.; preparation of iodonium salts as latent acid scavengers)

IT 538-93-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation with iodoarenes; preparation of iodonium salts as latent acid scavengers)

IT 91277-21-3P 344563-04-8P 344585-10-0P 344585-11-1P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(crosslinked; preparation of iodonium salts as latent acid scavengers)

IT 344562-80-7P 344562-82-9P 344562-84-1P 344562-86-3P 344562-88-5P
344562-90-9P 344562-92-1P 344562-94-3P 344562-95-4P 344562-97-6P
344562-98-7P 344563-00-4P 344563-02-6P 344563-03-7P
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation of iodonium salts as latent acid scavengers)

IT 17084-13-8, Potassium hexafluorophosphate
RL: RCT (Reactant); RACT (Reactant or reagent)
(salification of diaryl iodonium salts; preparation of iodonium salts as latent acid scavengers)

IT 29420-49-3, Potassium nonaflate
RL: NUU (Other use, unclassified); USES (Uses)
(salification; preparation of iodonium salts as latent acid scavengers)

L12 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2000:823004 CAPLUS

DN 133:367850

ED Entered STN: 24 Nov 2000

TI Trilayer laminated film for patterning comprising coating resist layer, filter layer, and insulating film-forming layer and patterning the film

IN Kojima, Daisuke; Imai, Kenji; Kogure, Hideo

PA Kansai Paint Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-26

ICS G03F007-11; H05K003-00; H05K003-06

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 2000321785	A	20001124	JP 1999-126367	19990506
PRAI	JP 1999-126367		19990506		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2000321785	ICM	G03F007-26
	ICS	G03F007-11; H05K003-00; H05K003-06
	IPCI	G03F0007-26 [ICM,7]; G03F0007-11 [ICS,7]; H05K0003-00 [ICS,7]; H05K0003-06 [ICS,7]
	IPCR	H05K0003-06 [I,C*]; H05K0003-06 [I,A]; G03F0007-11 [I,C*]; G03F0007-11 [I,A]; G03F0007-26 [I,C*]; G03F0007-26 [I,A]; H05K0003-00 [I,C*]; H05K0003-00 [I,A]
AB	The film for forming patterns on a substrate comprises (A) an energy-sensitive coating layer, (B) a filter layer, and (C) an energy-sensitive elec. insulating film-forming layer, in which (B) absorbs and/or reflects energy beam radiated from the upper side of (A) to control the energy so that the beam dose not detrimentally affect patterning of (C). A patterning method of the laminated film is also claimed.	
ST	elec insulating film pattern formation laminate filter layer; patterning elec insulating resist film trilayer laminate	
IT	Photoresists (dry-film; formation of elec. insulating film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and insulating film-forming layer)	
IT	Phenolic resins, uses Phenolic resins, uses RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) (epoxy, novolak, acrylates, resist for insulating film; formation of elec. insulating film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and insulating film-forming layer)	
IT	Dielectric films Electronic device fabrication Negative photoresists Optical filters Photolithography Photoresists Positive photoresists (formation of elec. insulating film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and insulating film-forming layer)	
IT	Resists (neg.-working; formation of elec. insulating film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and insulating film-forming layer)	
IT	Epoxy resins, uses Epoxy resins, uses RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) (phenolic, novolak, acrylates, resist for insulating film; formation of elec. insulating film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and	

insulating film-forming layer)

IT Carbon black, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (poly(vinyl alc.) filter layer containing; formation of elec.
 insulating
 film pattern using trilayer laminate comprising coating resist layer,
 filter layer to control energy beam, and insulating film-forming
 layer)

IT Resists
 (pos.-working; formation of elec. insulating film pattern using
 trilayer laminate comprising coating resist layer, filter layer to
 control energy beam, and insulating film-forming layer)

IT 1328-53-6, Phthalocyanine green 7727-43-7, Barium sulfate
 RL: DEV (Device component use); TEM (Technical or engineered material
 use); USES (Uses)
 (elec. insulator; formation of elec. insulating film pattern using
 trilayer laminate comprising coating resist layer, filter layer to
 control energy beam, and insulating film-forming layer)

IT 9002-89-5, Poly(vinyl alcohol)
 RL: TEM (Technical or engineered material use); USES (Uses)
 (filter layer, carbon black-containing; formation of elec. insulating
 film
 pattern using trilayer laminate comprising coating resist layer,
 filter
 layer to control energy beam, and insulating film-forming layer)

IT 30400-34-1P, Acrylic acid-butyl acrylate-glycidyl methacrylate-methyl
 methacrylate copolymer
 RL: DEV (Device component use); PNU (Preparation, unclassified); PREP
 (Preparation); USES (Uses)
 (neg.-working resist; formation of elec. insulating film pattern using
 trilayer laminate comprising coating resist layer, filter layer to
 control energy beam, and insulating film-forming layer)

IT 252729-57-0P, Acrylic acid-butyl acrylate-dimethylaminoethyl
 methacrylate-glycidyl methacrylate-methyl acrylate-styrene copolymer
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered
 material
 use); PREP (Preparation); USES (Uses)
 (neg.-working resist; formation of elec. insulating film pattern using
 trilayer laminate comprising coating resist layer, filter layer to
 control energy beam, and insulating film-forming layer)

IT 161613-66-7P, Acrylic acid-butyl acrylate-p-hydroxystyrene
 copolymer
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered
 material
 use); PREP (Preparation); USES (Uses)
 (pos.-working resist; formation of elec. insulating film pattern using
 trilayer laminate comprising coating resist layer, filter layer to
 control energy beam, and insulating film-forming layer)

L12 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN
 AN 2000:823002 CAPLUS
 DN 133:367849
 ED Entered STN: 24 Nov 2000
 TI Trilayer laminated film comprising resist coating layer, filter layer,
 and

electrically-conductive film-forming resist layer and patterning of the film
 IN Kojima, Daisuke; Imai, Kenji; Kogure, Hideo
 PA Kansai Paint Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-095
 ICS G03F007-004; G03F007-11; G03F007-26; G03F007-40; G03F007-42;
 H05K003-02
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 76

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000321775	A	20001124	JP 1999-126366	19990506
PRAI	JP 1999-126366		19990506		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2000321775	ICM	G03F007-095
	ICS	G03F007-004; G03F007-11; G03F007-26; G03F007-40; G03F007-42; H05K003-02
	IPCI	G03F0007-095 [ICM,7]; G03F0007-004 [ICS,7]; [ICS,7]; G03F0007-26 [ICS,7]; G03F0007-40 [ICS,7]; G03F0007-42 [ICS,7]; H05K0003-02 [ICS,7]
	IPCR	H05K0003-02 [I,C*]; H05K0003-02 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-095 [I,C*]; G03F0007-095 [I,A]; G03F0007-11 [I,C*]; G03F0007-11 [I,A]; G03F0007-26 [I,C*]; G03F0007-26 [I,A]; G03F0007-40 [I,C*]; G03F0007-40 [I,A]; G03F0007-42 [I,C*]; G03F0007-42 [I,A]

G03F0007-11

AB The film for forming elec.-conductive patterns on substrate comprises (A) an energy-sensitive coating layer, (B) a filter layer, and (C) an energy-sensitive elec.-conductive film-forming layer, in which (B) absorbs and/or reflects energy beam radiated from the upper side of (A) to control the energy so that the beam dose not detrimentally affect patterning of (C). A patterning method of the laminated film is also claimed.

ST elec conductive film pattern formation laminate filter layer; patterning elec conductive resist film trilayer laminate

IT Photoresists
 (dry-film; formation of elec.-conductive film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and conductive film-forming layer)

IT Films
 Films
 (elec. conductive, silver-containing; formation of elec.-conductive film pattern using trilayer laminate comprising coating resist layer, filter

layer to control energy beam, and conductive film-forming layer)

IT Phenolic resins, uses
 Phenolic resins, uses
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (epoxy, novolak, acrylates, silver-containing elec. conductive neg.-working resist layer; formation of elec.-conductive film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and conductive film-forming layer)

IT Electric conductors
 Electric conductors
 (films, silver-containing; formation of elec.-conductive film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and conductive film-forming layer)

IT Electronic device fabrication
 Negative photoresists
 Optical filters
 Photolithography
 Photoresists
 Positive photoresists
 (formation of elec.-conductive film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and conductive film-forming layer)

IT Resists
 (neg.-working; formation of elec.-conductive film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and conductive film-forming layer)

IT Epoxy resins, uses
 Epoxy resins, uses
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (phenolic, novolak, acrylates, silver-containing elec. conductive neg.-working resist layer; formation of elec.-conductive film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and conductive film-forming layer)

IT Carbon black, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (poly(vinyl alc.) filter layer containing; formation of elec.-conductive film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and conductive film-forming layer)

IT Resists
 (pos.-working; formation of elec.-conductive film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and conductive film-forming layer)

IT Electrically conductive pastes
 (silver-containing; formation of elec.-conductive film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and conductive film-forming layer)

IT 7440-22-4, Silver, uses
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (elec.-conductive resist film containing; formation of elec.-conductive

film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and conductive film-forming layer)

IT 9002-89-5, Poly(vinyl alcohol)
 RL: TEM (Technical or engineered material use); USES (Uses)
 (filter layer, carbon black-containing; formation of elec.-conductive film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and conductive film-forming layer)

IT 30400-34-1P, Acrylic acid-butyl acrylate-glycidyl methacrylate-methyl methacrylate copolymer
 RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
 (neg.-working resist; formation of elec.-conductive film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and conductive film-forming layer)

IT 252729-57-0P, Acrylic acid-butyl acrylate-dimethylaminoethyl methacrylate-glycidyl methacrylate-methyl acrylate-styrene copolymer
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (neg.-working resist; formation of elec.-conductive film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and conductive film-forming layer)

IT 161613-66-7P, Acrylic acid-butyl acrylate-p-hydroxystyrene copolymer
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (pos.-working resist; formation of elec.-conductive film pattern using trilayer laminate comprising coating resist layer, filter layer to control energy beam, and conductive film-forming layer)

L12 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1995:996151 CAPLUS

DN 124:71620

OREF 124:13133a,13136a

ED Entered STN: 22 Dec 1995

TI Positive working photosensitive composition

IN Eichhorn, Mathias; Buhr, Gerhard

PA Hoechst A.-G., Germany

SO Ger. Offen., 7 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM G03F007-039

ICS C08L025-18; C08L033-14

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4414896	A1	19951102	DE 1994-4414896	19940428
	EP 683435	A1	19951122	EP 1995-105725	19950418

EP 683435	B1	19970604	
R: AT, CH, DE, FR, GB, IT, LI, NL			
AT 154144	T	19970615	AT 1995-105725 19950418
BR 9501830	A	19960305	BR 1995-1830 19950427
US 5654121	A	19970805	US 1995-430073 19950427
JP 08044064	A	19960216	JP 1995-105950 19950428
US 5879852	A	19990309	US 1997-841659 19970430
PRAI DE 1994-4414896	A	19940428	
US 1995-430073	A3	19950427	
CLASS			
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
DE 4414896	ICM	G03F0007-039	
	ICS	C08L025-18; C08L033-14	
	IPCI	G03F0007-039 [ICM,6]; C08L0025-18 [ICS,6]; C08L0025-00 [ICS,6,C*]; C08L0033-14 [ICS,6]; C08L0033-00	
[ICS,6,C*]	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-016 [I,C*]; G03F0007-016 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]	
EP 683435	ECLA	G03F0007/039; S03F	
	IPCI	G03F0007-039 [ICM,6]	
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-016 [I,C*]; G03F0007-016 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]	
AT 154144	ECLA	G03F0007/039; S03F	
	IPCI	G03F0007-039 [ICM,6]	
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-016 [I,C*]; G03F0007-016 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]	
BR 9501830	ECLA	G03F0007/039; S03F	
	IPCI	G03F0007-039 [ICM,6]; C08L0025-18 [ICS,6]; C08L0025-00 [ICS,6,C*]	
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-016 [I,C*]; G03F0007-016 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]	
US 5654121	ECLA	G03F0007/039; S03F	
	IPCI	G03F0007-021 [ICM,6]; G03F0007-016 [ICM,6,C*]; G03F0007-039 [ICS,6]; G03F0007-30 [ICS,6]	
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-016 [I,C*]; G03F0007-016 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]	
	NCL	430/157.000; 430/170.000; 430/176.000; 430/270.100; 430/326.000; 430/910.000; 522/031.000; 522/032.000	
JP 08044064	ECLA	G03F0007/039; S03F	
G03F0007-004	IPCI	G03F0007-039 [ICM,6]; G03F0007-00 [ICS,6]; [ICS,6]; G03F0007-016 [ICS,6]; H01L0021-027 [ICS,6]; H01L0021-02 [ICS,6,C*]	
	IPCR	G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-00	

[I,C*]; G03F0007-00 [I,A]; G03F0007-016 [I,C*];
G03F0007-016 [I,A]; G03F0007-039 [I,C*]; G03F0007-039
[I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
US 5879852 IPCI C08F0008-14 [ICM,6]; C08F0008-10 [ICS,6]; C08F0008-00
[ICS,6,C*]; G03C0007-039 [ICS,6]; G03C0001-52 [ICS,6]
IPCR G03F0007-004 [I,C*]; G03F0007-004 [I,A]
NCL 430/157.000; 430/170.000; 430/176.000; 430/270.100;
430/270.110; 430/326.000; 430/910.000; 522/029.000;
522/031.000; 522/032.000; 522/063.000; 522/067.000;
522/154.000; 526/313.000; 526/314.000; 526/328.000;
526/328.500; 526/329.200; 526/346.000; 526/347.000
ECLA G03F007/004D

AB The title composition comprises: (a) a polymeric binder with an acid
labile group; and (b) a photoacid generator where the polymeric binder contains
a repeating units of R1-OH, R1-OCO2-R2 and R1OCH2CHR3OH [R1 = bond with the
main chain or side chain of a polymer, optionally substituted phenyl; R2
= alkyl, alkenyl, aralkyl; R3 = H, alkyl, aryl, phthalimidomethyl, -CH2OR4
(R4 = H, aliphatic, alicyclic, aromatic group)]. The material can be
used for printing plate or photoresists.
ST photosensitive compn printing plate photoresist
IT Printing plates
(pos. working photosensitive composition containing epoxy binder)
IT Resists
(photo-, pos. working photosensitive composition containing epoxy
binder)
IT 556-52-5D, Oxiranemethanol, reaction product with di-tert-Bu dicarbonate
and hydroxystyrene 2210-79-9D, reaction product with di-tert-Bu
dicarbonate and hydroxystyrene 4016-14-2D, (2,3-Epoxypropyl)isopropyl
ether, reaction product with di-tert-Bu dicarbonate and hydroxystyrene
24424-99-5D, Di-tert-butyl dicarbonate, reaction product with
epoxy compound and hydroxystyrene 24979-70-2D,
Poly(4-hydroxystyrene), reaction product with di-tert-Bu dicarbonate and
epoxy compound
RL: MOA (Modifier or additive use); USES (Uses)
(pos. working photosensitive composition containing epoxy binder)

L12 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN
AN 1995:584267 CAPLUS
DN 123:97961
OREF 123:17215a,17218a
ED Entered STN: 02 Jun 1995
TI Heat-curable positive-working photosensitive compositions
IN Tsutsumi, Yoshitaka; Tanaka, Tetsuo; Myamura, Hiroyuki; Hasegawa,
Masazumi
PA Tosoh Corp, Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-039
ICS G02B001-04; G03F007-004; G03F007-022; G03F007-023

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

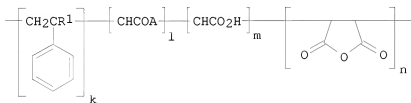
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07064289	A	19950310	JP 1993-211619	19930826
PRAI JP 1993-211619		19930826		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 07064289	ICM	G03F007-039
	ICS	G02B001-04; G03F007-004; G03F007-022; G03F007-023
	IPCI	G03F0007-039 [ICM,6]; G02B0001-04 [ICS,6];
G03F0007-004		[ICS,6]; G03F0007-022 [ICS,6]; G03F0007-023 [ICS,6]
	IPCR	G02B0001-04 [I,C*]; G02B0001-04 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-022 [I,C*]; G03F0007-022 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]

GI



I

- AB The compns. comprise alkali-soluble resins, 1,2-naphthoquinonediazidosulfonate photosensitizers, heat-curing agents, and solvents based on mixts. of alkyl lactates and propylene glycol monoalkyl ethers. The resin may be a novolak or a resin with the structure I or [CH2CR1Ph]x[CH2CR2COA]y[CH2CR3CO2H]z [R1 = H, Me; R2, R3 = H, Me, Cl, Br; A = OAl, NA2A3 (Al-3 = H, Cl-6 alkyl, C6-12 aryl, C7-12 aralkyl)]; k, m, z ≥ 1; l, n, x, y ≥ 0. The compns. show good coatability on uneven substrates and are useful as resists for preparing solid-state devices and liquid crystal imaging devices. Thus, SMA 2625 (partially esterified styrene-maleic anhydride copolymer), Me gallate 1,2-naphthoquinonediazido-5-sulfonate triester, and Cymel 303 (hexamethoxymethylmelamine) were dissolved in 1:1 Et lactate-propylene glycol monomethyl ether mixture to give a resist solution
- ST pos working photosensitive compn; solvent lactate propylene glycol photoresist; heat curable photoresist naphthoquinonediazidosulfonate photosensitizer; alkali sol resin photosensitive compn
- IT Epoxy resins, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (crosslinking agents; pos.-working photoresist compns. containing alkaline-soluble resins, 1,2-naphthoquinonediazidosulfonates, heat-curing agents, and lactate-propylene glycol ether mixture)
- IT Crosslinking agents

- (pos.-working photoresist compns. containing alkaline-soluble resins, 1,2-naphthoquinonediazidosulfonates, heat-curing agents, and lactate-propylene glycol ether mixture)
- IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(novolak, pos.-working photoresist compns. containing alkaline-soluble resins, 1,2-naphthoquinonediazidosulfonates, heat-curing agents, and lactate-propylene glycol ether mixture)
- IT Resists
(photo-, pos.-working photoresist compns. containing alkaline-soluble resins, 1,2-naphthoquinonediazidosulfonates, heat-curing agents, and lactate-propylene glycol ether mixture)
- IT 68890-81-3, SMA 2625
RL: TEM (Technical or engineered material use); USES (Uses)
(SMA 2625; pos.-working photoresist compns. containing alkaline-soluble resins, 1,2-naphthoquinonediazidosulfonates, heat-curing agents, and lactate-propylene glycol ether mixture)
- IT 9003-08-1, Cymel 303 150604-81-2, Epolead GT 400
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agent; pos.-working photoresist compns. containing alkaline-soluble resins, 1,2-naphthoquinonediazidosulfonates, heat-curing agents, and lactate-propylene glycol ether mixture)
- IT 107761-81-9, 2,3,4,4'-Tetrahydroxybenzophenone 136830-38-1, Methyl gallate 1,2-naphthoquinonediazido-5-sulfonate triester
RL: MOA (Modifier or additive use); USES (Uses)
(photosensitizer; pos.-working photoresist compns. containing alkaline-soluble resins, 1,2-naphthoquinonediazidosulfonates, heat-curing agents, and lactate-propylene glycol ether mixture)
- IT 24979-70-2, Maruka Lyncur M
RL: TEM (Technical or engineered material use); USES (Uses)
(pos.-working photoresist compns. containing alkaline-soluble resins, 1,2-naphthoquinonediazidosulfonates, heat-curing agents, and lactate-propylene glycol ether mixture)
- IT 50-21-5D, Lactic acid, alkyl esters 1320-67-8, Propylene glycol monomethyl ether
RL: NUU (Other use, unclassified); USES (Uses)
(solvent; pos.-working photoresist compns. containing alkaline-soluble resins, 1,2-naphthoquinonediazidosulfonates, heat-curing agents, and lactate-propylene glycol ether mixture)

L12 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1995:584266 CAPLUS

DN 123:97960

OREF 123:17215a,17218a

ED Entered STN: 02 Jun 1995

TI Heat-curable positive-working photosensitive compositions

IN Tsutsumi, Yoshitaka; Tanaka, Tetsuo; Myamura, Hiroyuki; Hasegawa, Masazumi

10 580065

PA Tosoh Corp, Japan
 SO Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03F007-039
 ICS G02B001-04; G03F007-004; G03F007-022; G03F007-023
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38

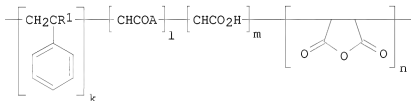
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07064288	A	19950310	JP 1993-210233	19930825
PRAI JP 1993-210233		19930825		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 07064288	ICM	G03F007-039
	ICS	G02B001-04; G03F007-004; G03F007-022; G03F007-023
	IPCI	G03F007-039 [ICM,6]; G02B0001-04 [ICS,6];
G03F0007-004		[ICS,6]; G03F0007-022 [ICS,6]; G03F0007-023 [ICS,6]
	IPCR	G02B0001-04 [I,C*]; G02B0001-04 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-022 [I,C*]; G03F0007-022 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]

OS MARPAT 123:97960
 GI



I

AB The comps. comprise alkali-soluble resins, 1,2-naphthoquinonediazidosulfonate photosensitizers, heat-curing agents, and solvent based on Et lactate or propylene glycol monomethyl ether.

The

resin may be a novolak or a resin with the structure I or [CH2CR1Ph]x[CH2CR2COA]y[CH2CR3CO2H]z [R1 = H, Me; R2, R3 = H, Me, Cl, Br; A = OA1, NA2A3 (A1-3 = H, C1-6 alkyl, C6-12 aryl, C7-12 aralkyl); k, m, z ≥1; 1, n, x, y ≥0]. The comps. show good coatability on uneven substrates and are useful as resists for preparing solid-state and liquid crystal imaging devices. Thus, styrene-maleic anhydride copolymer monobenzyl ester, Me gallate 1,2-naphthoquinonediazido-5-sulfonate triester, and Mycoat 506 (hexabutoxymethylolmelamine) were dissolved in

Et

lactate to give a resist solution

ST pos working photosensitive compn; heat curable photoresist
 naphthoquinonediazidosulfonate photosensitizer; solvent lactate propylene
 glycol photoresist

IT Epoxy resins, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (crosslinking agents; pos.-working photoresist compns. containing
 alkaline-soluble
 resins, 1,2-naphthoquinonediazidosulfonates and heat-curing agents)

IT Crosslinking agents
 (pos.-working photoresist compns. containing alkaline-soluble resins,
 1,2-naphthoquinonediazidosulfonates and heat-curing agents)

IT Phenolic resins, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (novolak, pos.-working photoresist compns. containing
 alkaline-soluble resins,
 1,2-naphthoquinonediazidosulfonates and heat-curing agents)

IT Resists
 (photo-, pos.-working photoresist compns. containing alkaline-soluble
 resins,
 1,2-naphthoquinonediazidosulfonates and heat-curing agents)

IT 9003-08-1, Mycoat 506
 RL: MOA (Modifier or additive use); USES (Uses)
 (Mycoat 506, crosslinking agent; pos.-working photoresist compns.
 containing alkaline-soluble resins,
 1,2-naphthoquinonediazidosulfonates and
 heat-curing agents)

IT 150604-81-2, Epolead GT 400
 RL: MOA (Modifier or additive use); USES (Uses)
 (crosslinking agent; pos.-working photoresist compns. containing
 alkaline-soluble
 resins, 1,2-naphthoquinonediazidosulfonates and heat-curing agents)

IT 107761-81-9, 2,3,4,4'-Tetrahydroxybenzophenone
 1,2-naphthoquinonediazido-5-sulfonate 136830-38-1, Methyl gallate
 1,2-naphthoquinonediazido-5-sulfonate triester
 RL: MOA (Modifier or additive use); USES (Uses)
 (photosensitizer; pos.-working photoresist compns. containing
 alkaline-soluble
 resins, 1,2-naphthoquinonediazidosulfonates and heat-curing agents)

IT 24979-71-3, Maruka Lyncur CMM 62712-10-1, Maleic
 anhydride-styrene copolymer benzyl ester
 RL: TEM (Technical or engineered material use); USES (Uses)
 (pos.-working photoresist compns. containing alkaline-soluble resins,
 1,2-naphthoquinonediazidosulfonates and heat-curing agents)

IT 97-64-3, Ethyl lactate 1320-67-8, Propylene glycol monomethyl ether
 RL: NUU (Other use, unclassified); USES (Uses)
 (solvent; pos.-working photoresist compns. containing
 alkaline-soluble resins,
 1,2-naphthoquinonediazidosulfonates and heat-curing agents)

L12 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1989:605474 CAPLUS

DN 111:205474

OREF 111:33957a,33960a

ED Entered STN: 25 Nov 1989

TI Positive-working photoresist composition containing iron arene

complex
 IN Meier, Kurt; Losert, Ewald
 PA Ciba-Geigy A.-G., Switz.
 SO Eur. Pat. Appl., 9 pp.
 CODEN: EPXXDW
 DT Patent
 LA German
 IC ICM G03F007-10
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 295211	A2	19881214	EP 1988-810362	19880602
	EP 295211	A3	19900117		
	EP 295211	B1	19940316		
	R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
	US 5124233	A	19920623	US 1988-202765	19880603
	BR 8802836	A	19890103	BR 1988-2836	19880610
	CA 1331926	C	19940913	CA 1988-569163	19880610
	JP 01003648	A	19890109	JP 1988-144553	19880611
PRAI	CH 1987-2214	A	19870612		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP	295211	ICM	G03F007-10
		IPCI	G03F0007-10 [ICM,4]
		IPCR	C08G0059-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-40 [I,A]; C08G0059-70 [I,A]; G03C0001-72 [I,C*]; G03C0001-72 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H05K0003-06 [I,C*]; H05K0003-06 [I,A]
US	5124233	ECLA	G03F007/004
		IPCI	G03C0001-64 [ICM,5]
		IPCR	C08G0059-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-40 [I,A]; C08G0059-70 [I,A]; G03C0001-72 [I,C*]; G03C0001-72 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H05K0003-06 [I,C*]; H05K0003-06 [I,A]
BR	8802836	NCL	430/280.100; 430/326.000; 430/327.000; 430/330.000
		ECLA	G03F007/004
		IPCI	G03C0001-72 [ICM,4]; G03F0007-26 [ICS,4]
		IPCR	C08G0059-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-40 [I,A]; C08G0059-70 [I,A]; G03C0001-72 [I,C*]; G03C0001-72 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H05K0003-06 [I,C*]; H05K0003-06 [I,A]
CA	1331926	ECLA	G03F007/004
		IPCI	G03F0007-039 [ICM,5]
		IPCR	C08G0059-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-40 [I,A]; C08G0059-70 [I,A]; G03C0001-72 [I,C*]; G03C0001-72 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]

[I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A];
G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H05K0003-06
[I,C*]; H05K0003-06 [I,A]

JP 01003648 IPCI G03C0001-72 [ICM,4]; C08G0059-50 [ICS,4]; C08G0059-70
[ICS,4]; C08G0059-00 [ICS,4,C*]; G03C0001-71 [ICS,4]
IPCR C08G0059-50 [I,A]; C08G0059-00 [I,C*]; C08G0059-40
[I,A]; C08G0059-70 [I,A]; G03C0001-72 [I,C*];
G03C0001-72 [I,A]; G03F0007-004 [I,C*]; G03F0007-004
[I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A];
G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H05K0003-06
[I,C*]; H05K0003-06 [I,A]

OS MARPAT 111:205474

AB Pos.-working photoresists having good temperature and chemical characteristics, as well as a short exposure time, contain a thermally hardenable epoxy resin, a latent urea or imidazole hardener for the above resin, and an Fe arene complex of the formula $[R_1(FeIR_2n)m+n(X)]n-m$ ($R_1 = \pi$ arene; $R_2 = a \pi$ arene anion; $X = a$ nonnucleophilic anion; $m = 1-S$; $n = 1$ or 2). A Cu-clad epoxy plate was overcoated with a composition containing an epoxide cresol novolak, talc, Irgalith Green, (η -6-anisole)(η -5-cyclopentadienyl)iron(II) hexafluorophosphate, 2-methylimidazole, and cyclohexanone, dried, imagewise exposed, hardened at 140° for 15 min, and developed with cyclohexanone to remove the exposed areas.

ST pos photoresist compn; epoxy resin pos photoresist compn; iron arene complex pos photoresist; arene iron complex pos photoresist; hardener urea imidazole pos photoresist; urea hardener pos photoresist; imidazole hardener pos photoresist

IT Epoxy resins, uses and miscellaneous
RL: USES (Uses)
(bisphenol A-based, thermally hardenable, pos.-working photoresists containing hardener and iron arene complex and)

IT Phenolic resins, uses and miscellaneous
RL: USES (Uses)
(epoxy, thermally hardenable, pos.-working photoresists containing hardener and iron arene complex and)

IT Epoxy resins, uses and miscellaneous
RL: USES (Uses)
(phenolic, thermally hardenable, pos.-working photoresists containing hardener and iron arene complex and)

IT Resists
(photo-, pos.-working, containing thermally hardenable epoxy resin and hardener and iron arene complex)

IT 12288-84-5 117549-13-0 120295-22-9
RL: USES (Uses)
(pos.-working photoresist containing thermally hardenable epoxy resin and hardener and)

IT 80-05-7D, epoxy resin 1675-54-3
RL: USES (Uses)
(pos.-working photoresists containing iron arene complex and hardening agent and thermally hardenable)

IT 693-98-1, 2-Methylimidazole 931-36-2, 2-Ethyl-4-methylimidazole 1072-63-5, 1-Vinylimidazole 83898-17-3
RL: USES (Uses)
(pos.-working photoresists containing phenolic epoxy resin and

10 580065

iron arene complex and hardener from)
IT 24979-70-2, Poly(p-vinylphenol)
RL: USES (Uses)
(pos.-working photoresists containing thermally hardenable epoxy
resin and hardener and iron arene complex and)

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FILE 'CAPLUS' ENTERED AT 17:20:50 ON 27 MAR 2009
L1 0 S WO2005052688/PN\
L2 1 S WO2005052688/PN
L3 1 S JP2001027806/PN
FILE 'CAPLUS' ENTERED AT 17:22:15 ON 27 MAR 2009
S 123589-22-0/REG#
FILE 'REGISTRY' ENTERED AT 17:22:39 ON 27 MAR 2009
L4 1 S 123589-22-0/RN
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L5 100 S L4
FILE 'REGISTRY' ENTERED AT 17:22:56 ON 27 MAR 2009
L6 1 S 123589-22-0
L7 1 S 2628-17-3/RN
L8 2666 S 2628-17-3/CRN
FILE 'CAPLUS' ENTERED AT 17:23:41 ON 27 MAR 2009
L9 8 S L8 AND (POLYVINYL ETHER OR POLYVINYLETHER OR DIVINYLETHER
OR
L10 0 S L8 AND (POLYVINYL ETHER OR POLYVINYLETHER OR DIVINYLETHER
OR
L11 575 S L8 AND (EPOXY OR DIEPOXY? OR POLYEPOXY? OR DIGLYCIDYL? OR
P
L12 15 S L11 AND POSITIV?

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